

FIG. 1

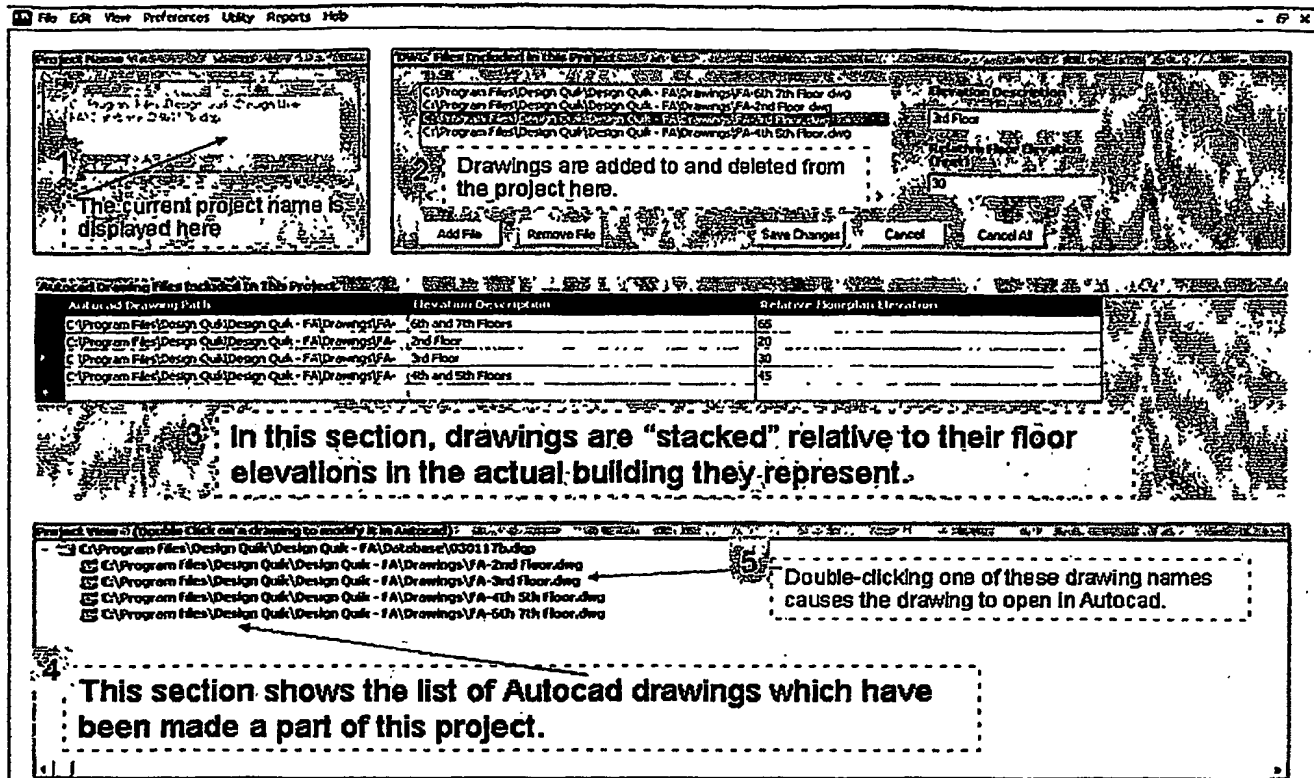


FIG. 2

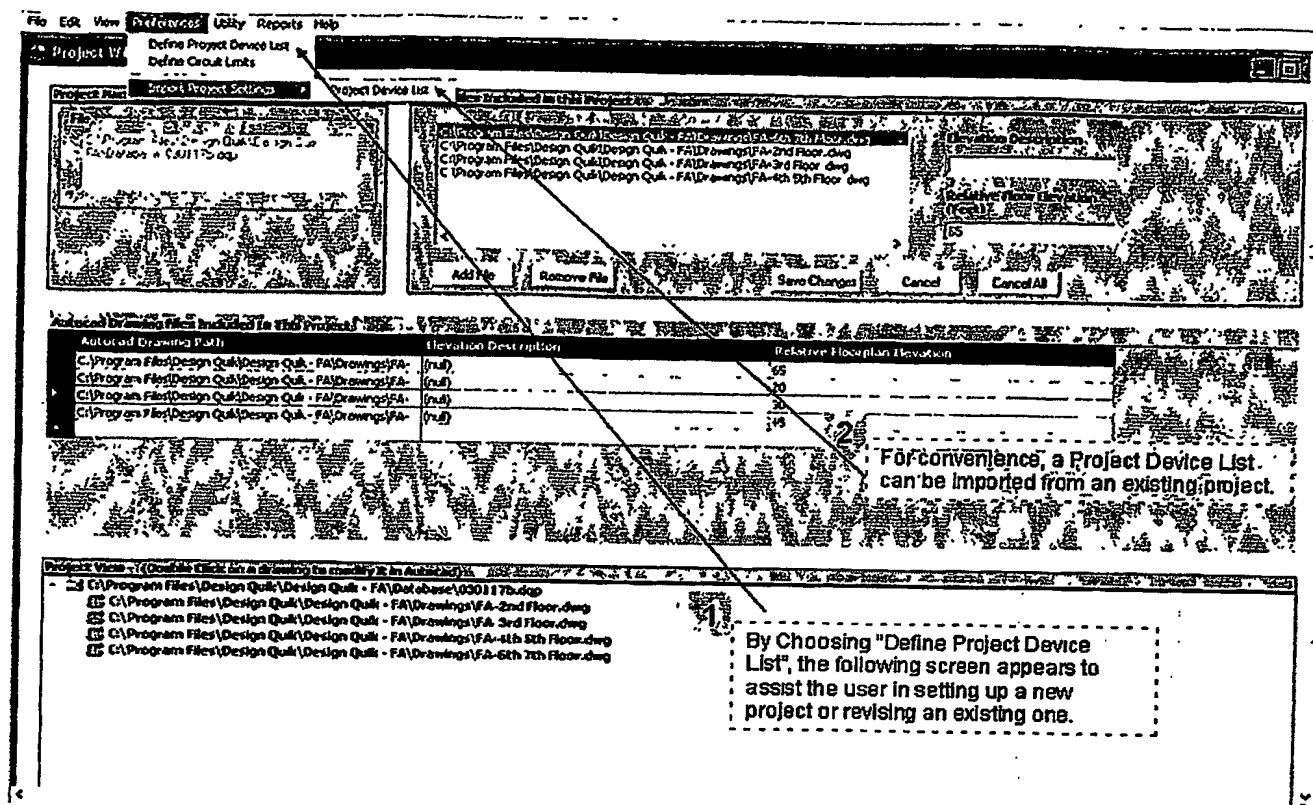
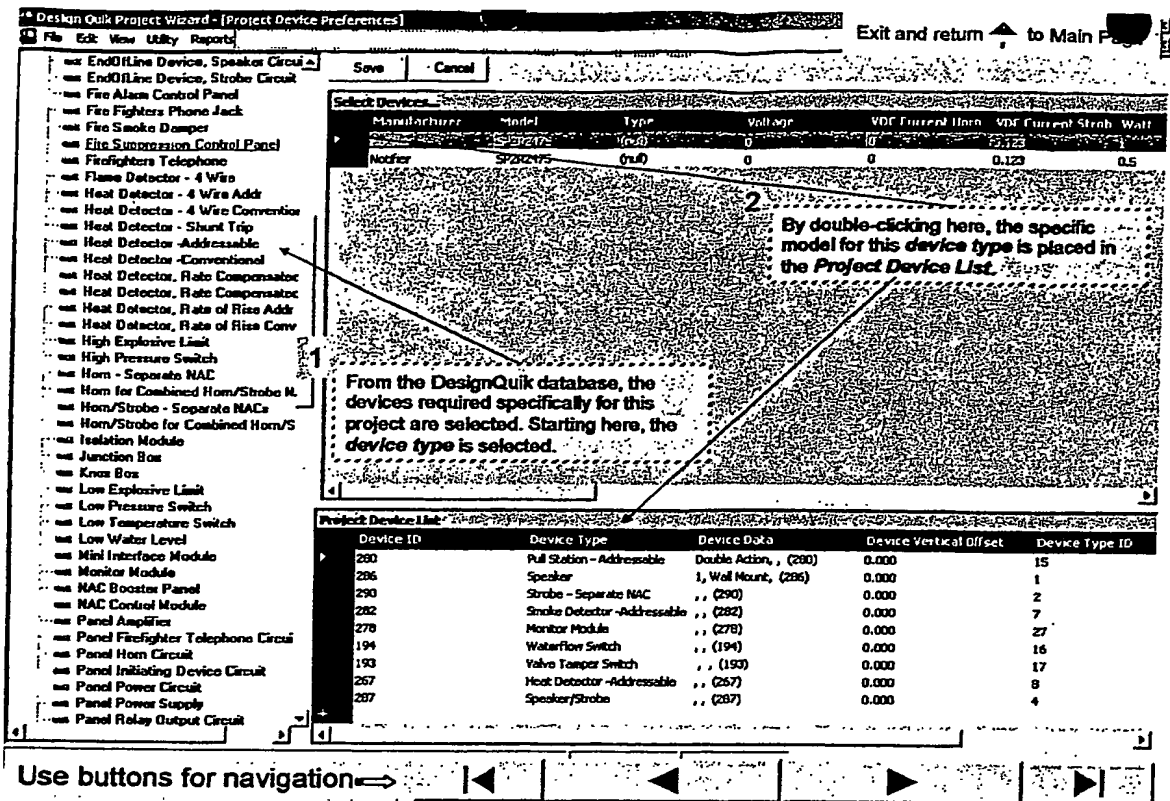


FIG. 3



F.G.4



FIG. 5

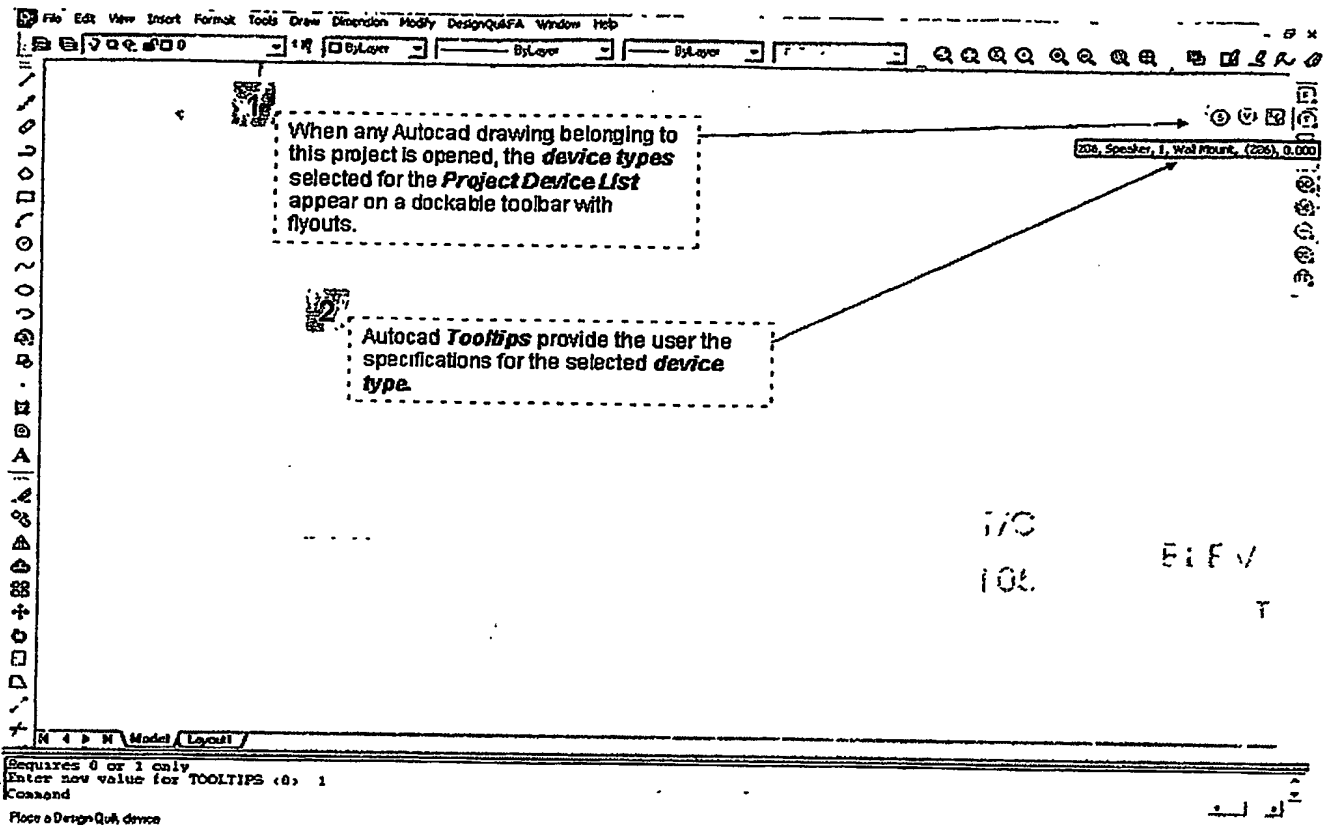


FIG. 6

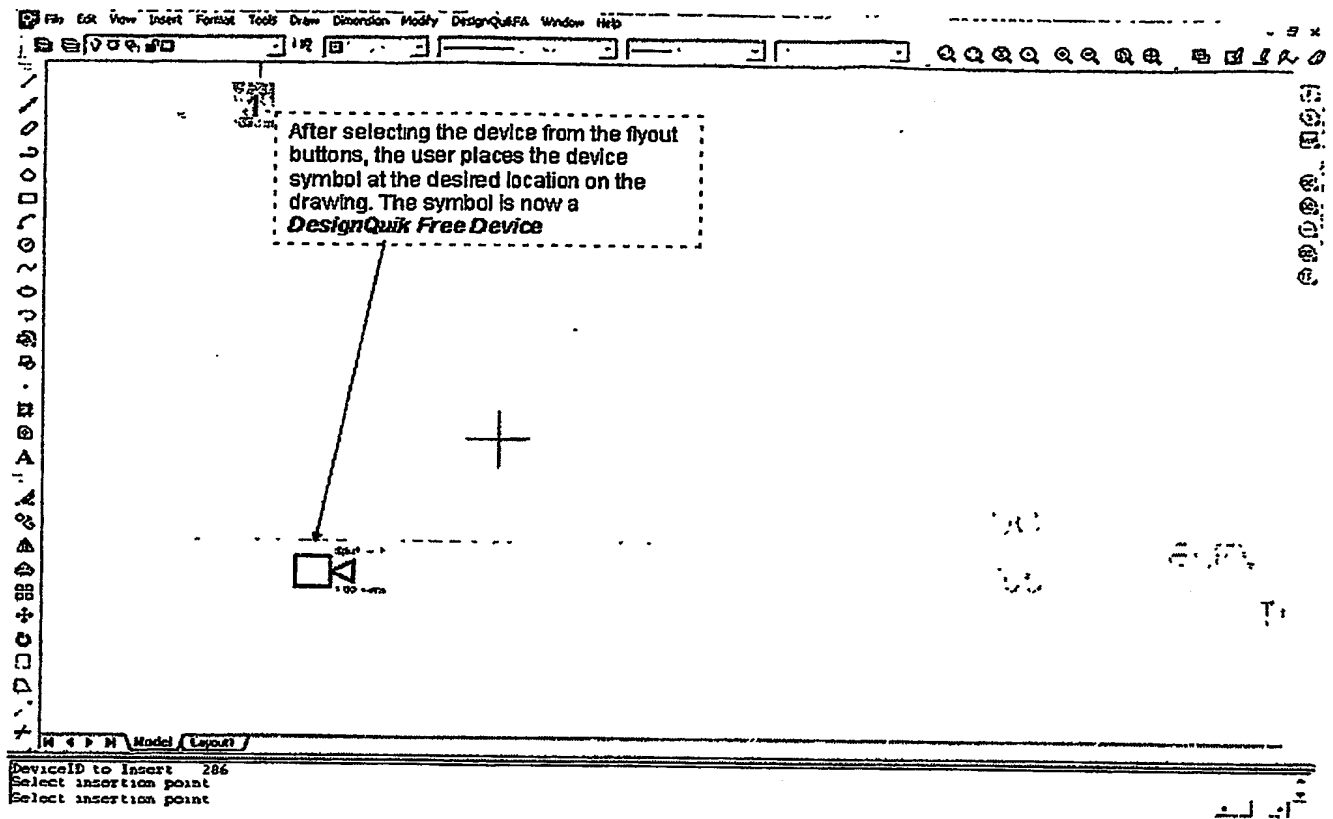


FIG. 7

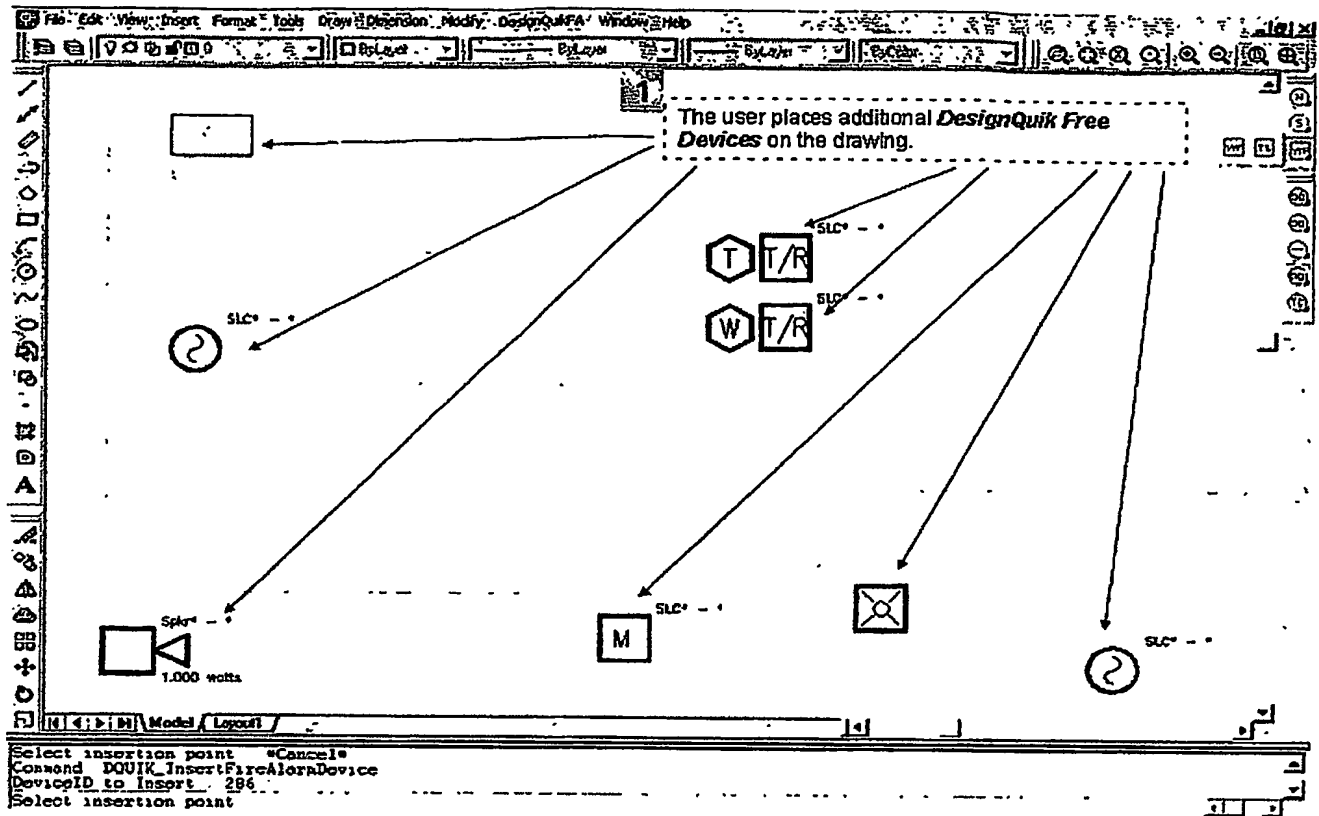


FIG. 8

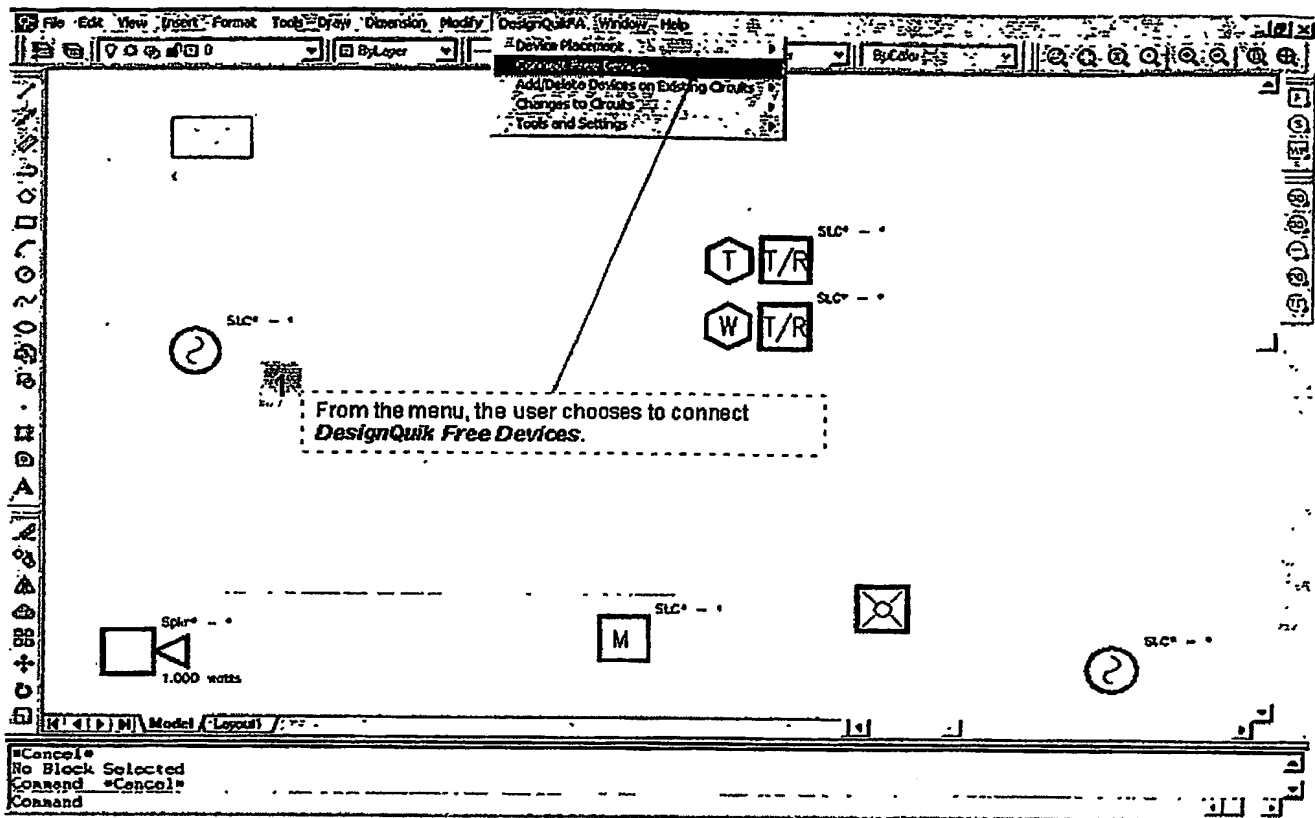


FIG. 9

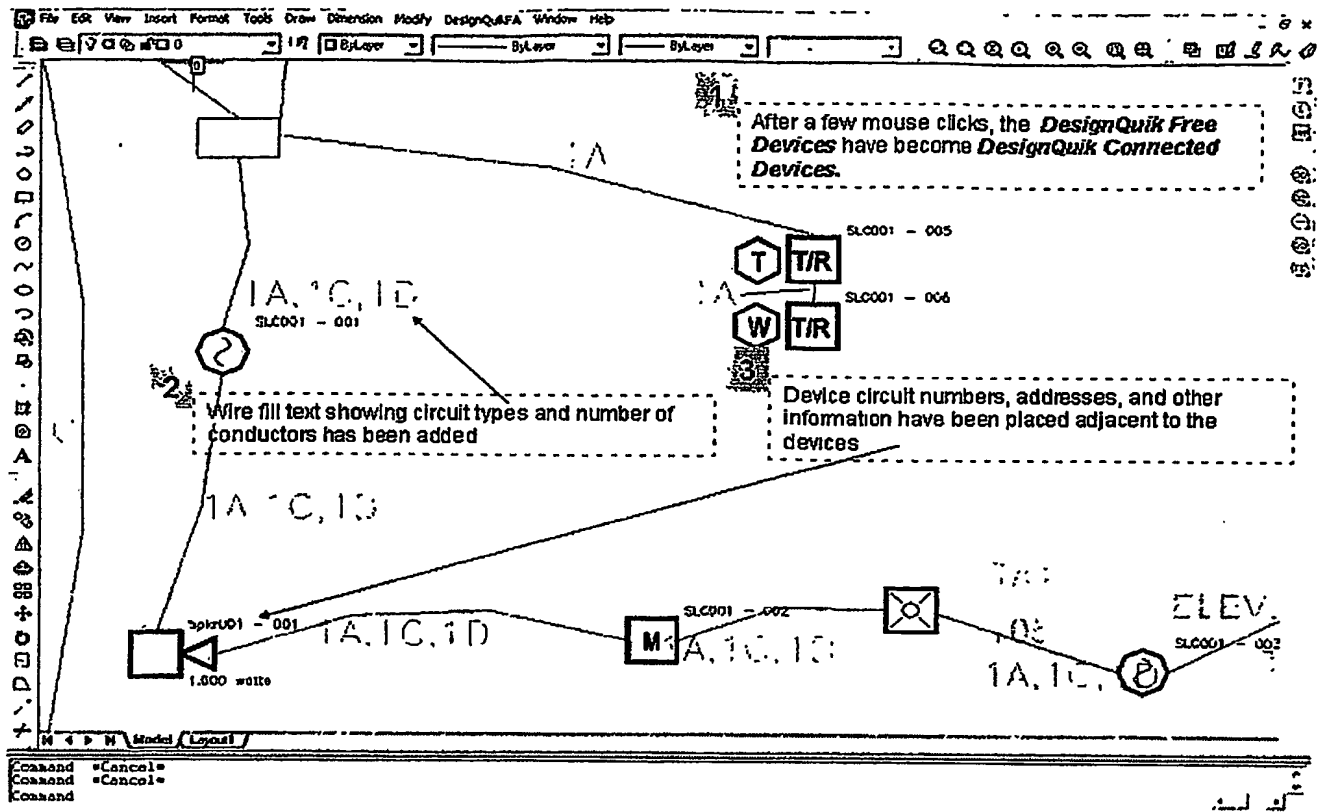


FIG. 10

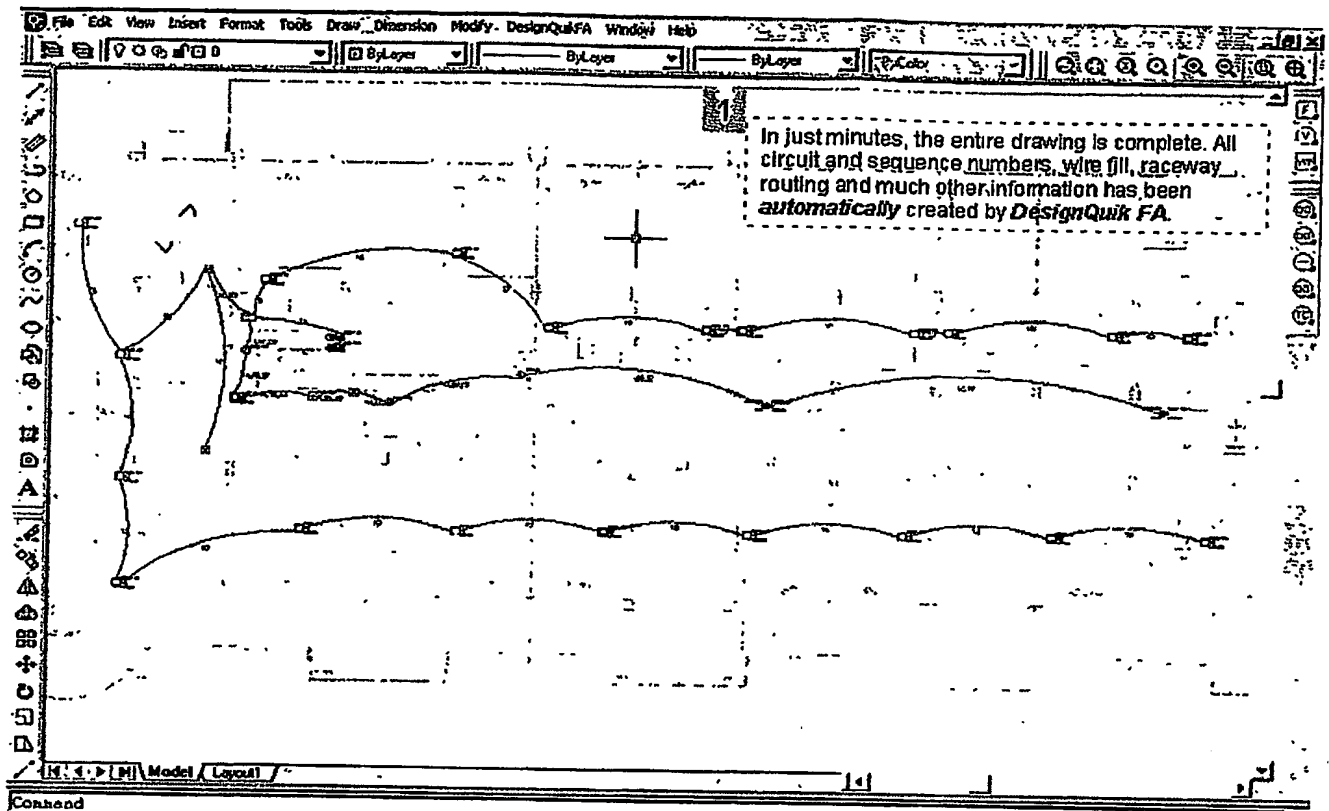


FIG. 11

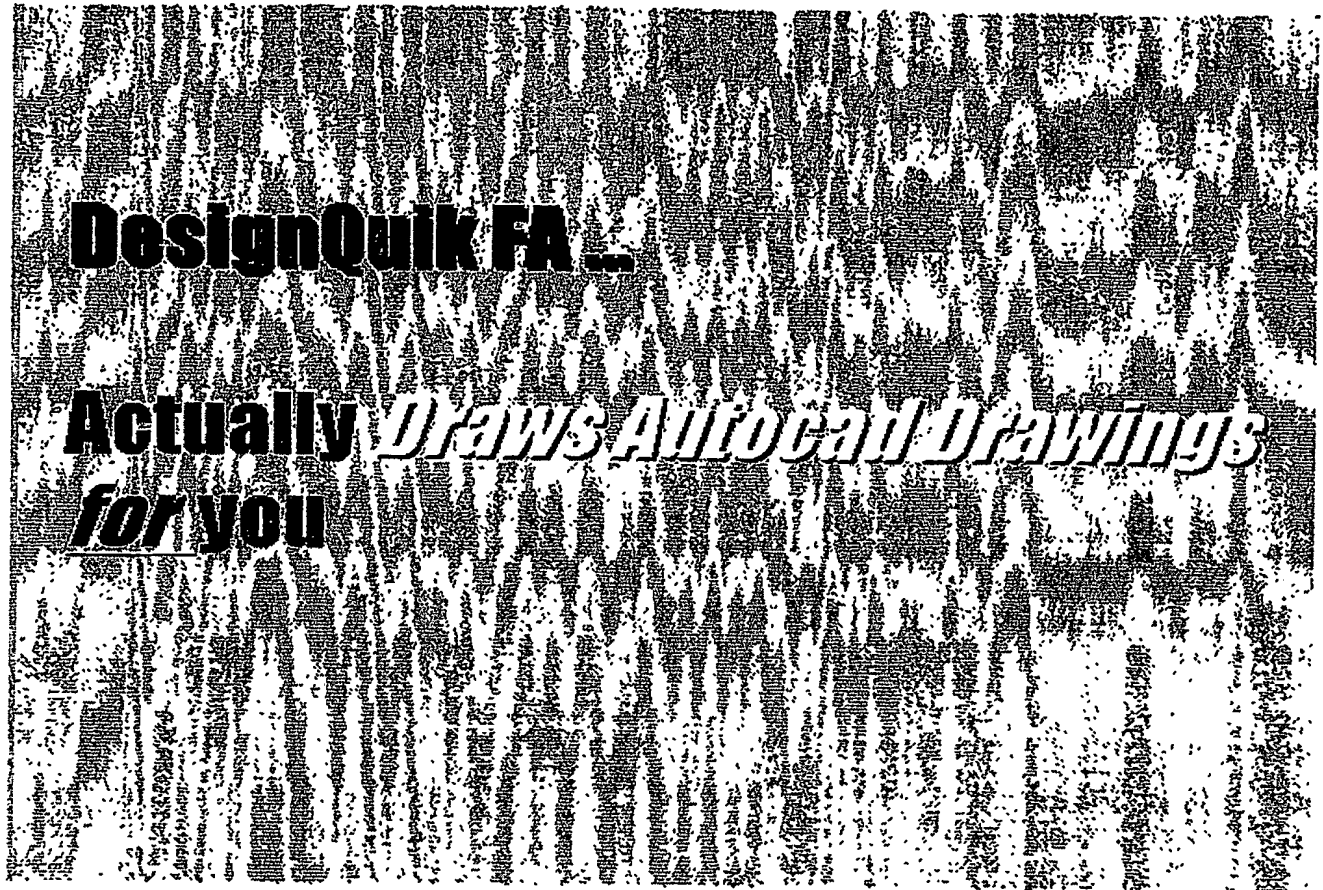


FIG. 12

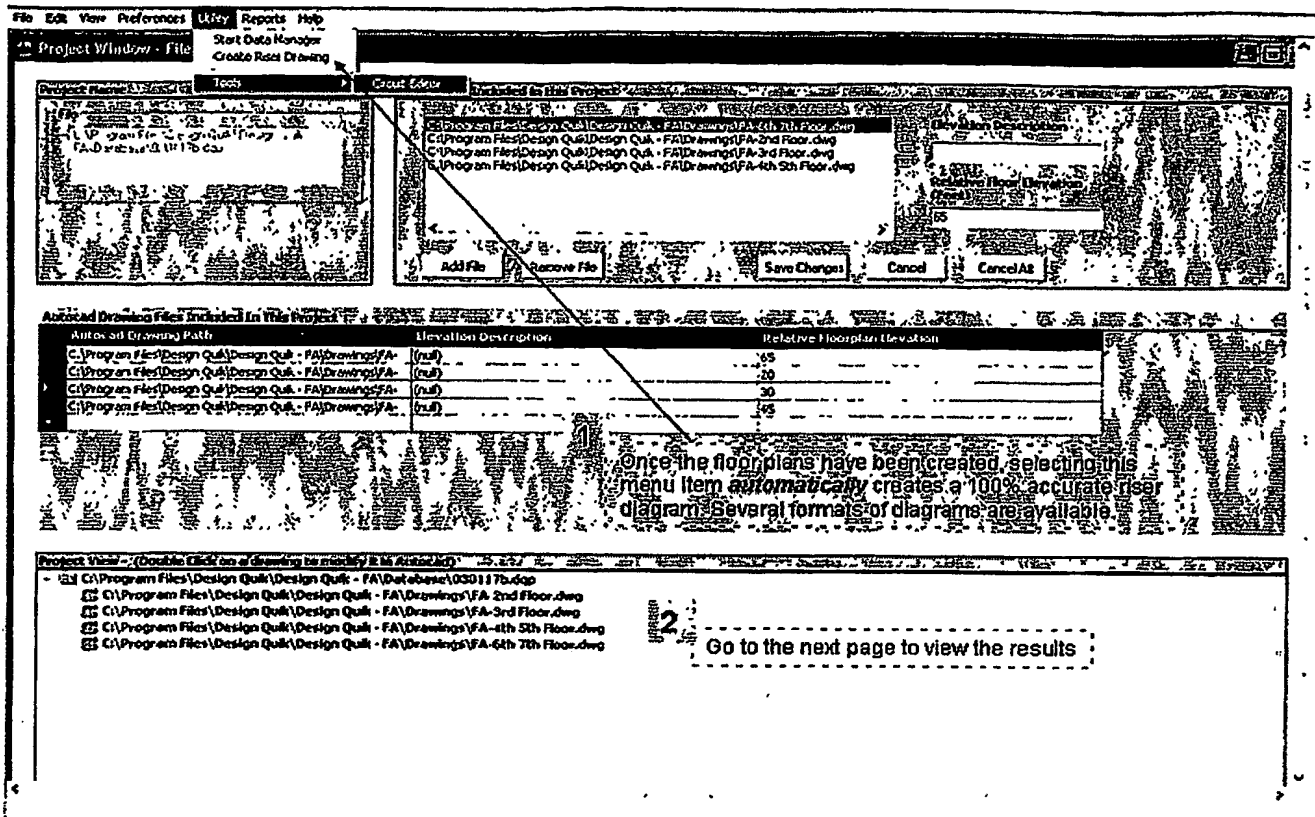


FIG. 13

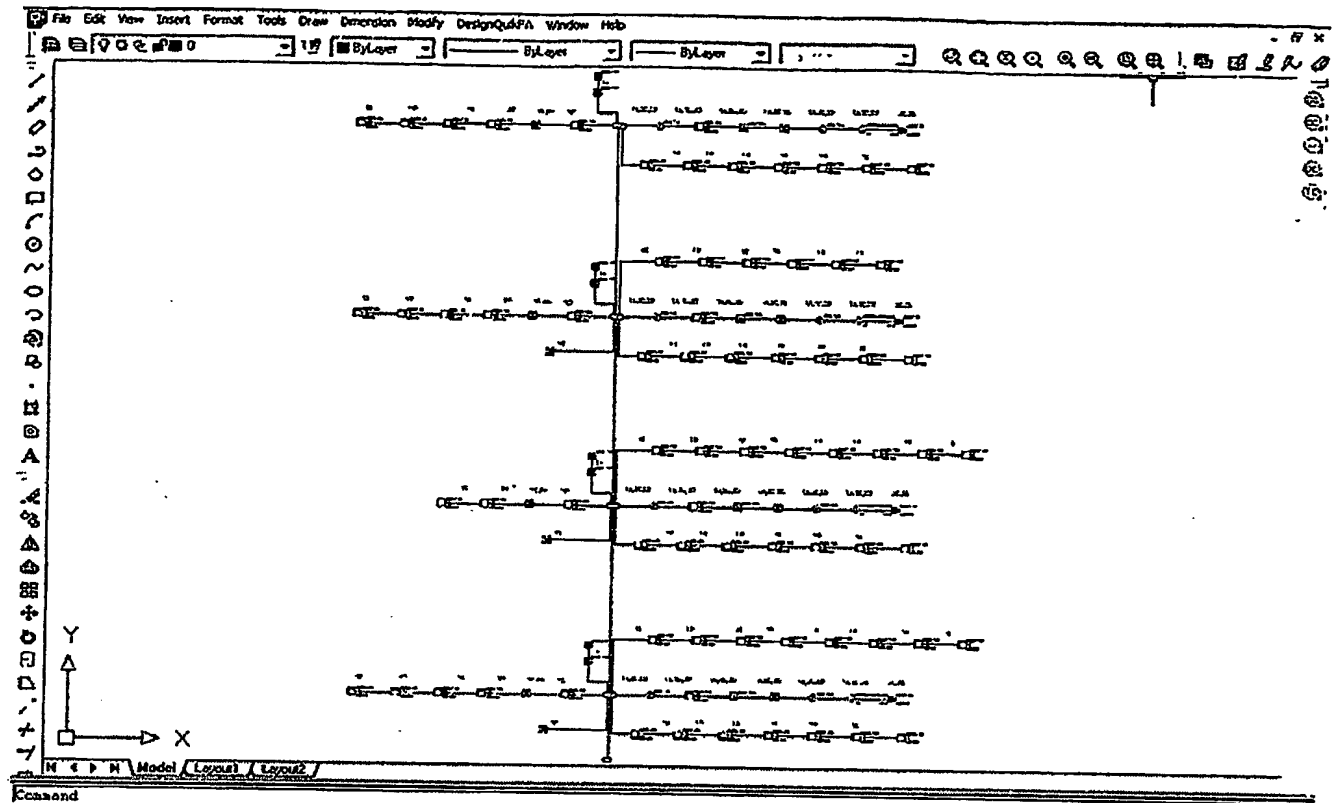


FIG. 14

SUBSTITUTE SHEET (RULE 26)

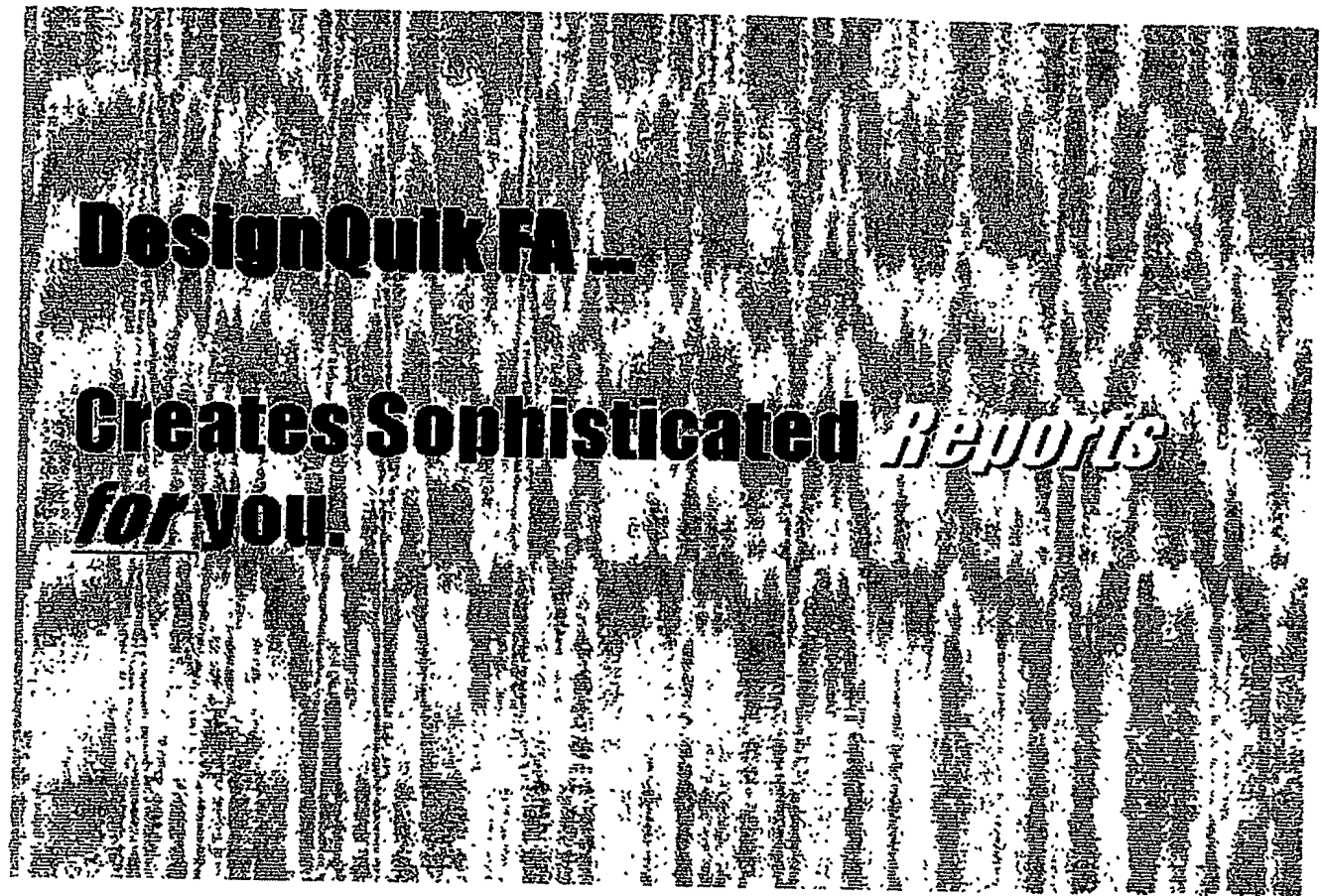


FIG. 15

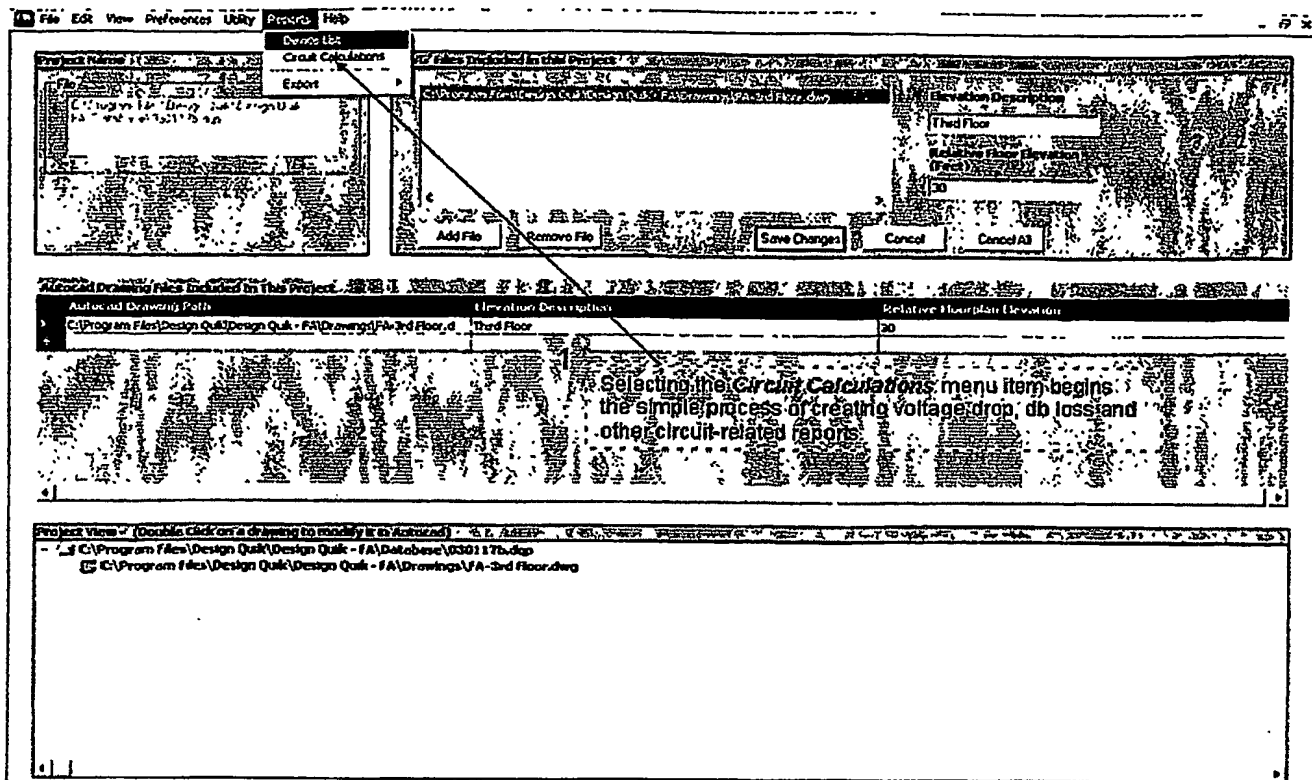


FIG. 16

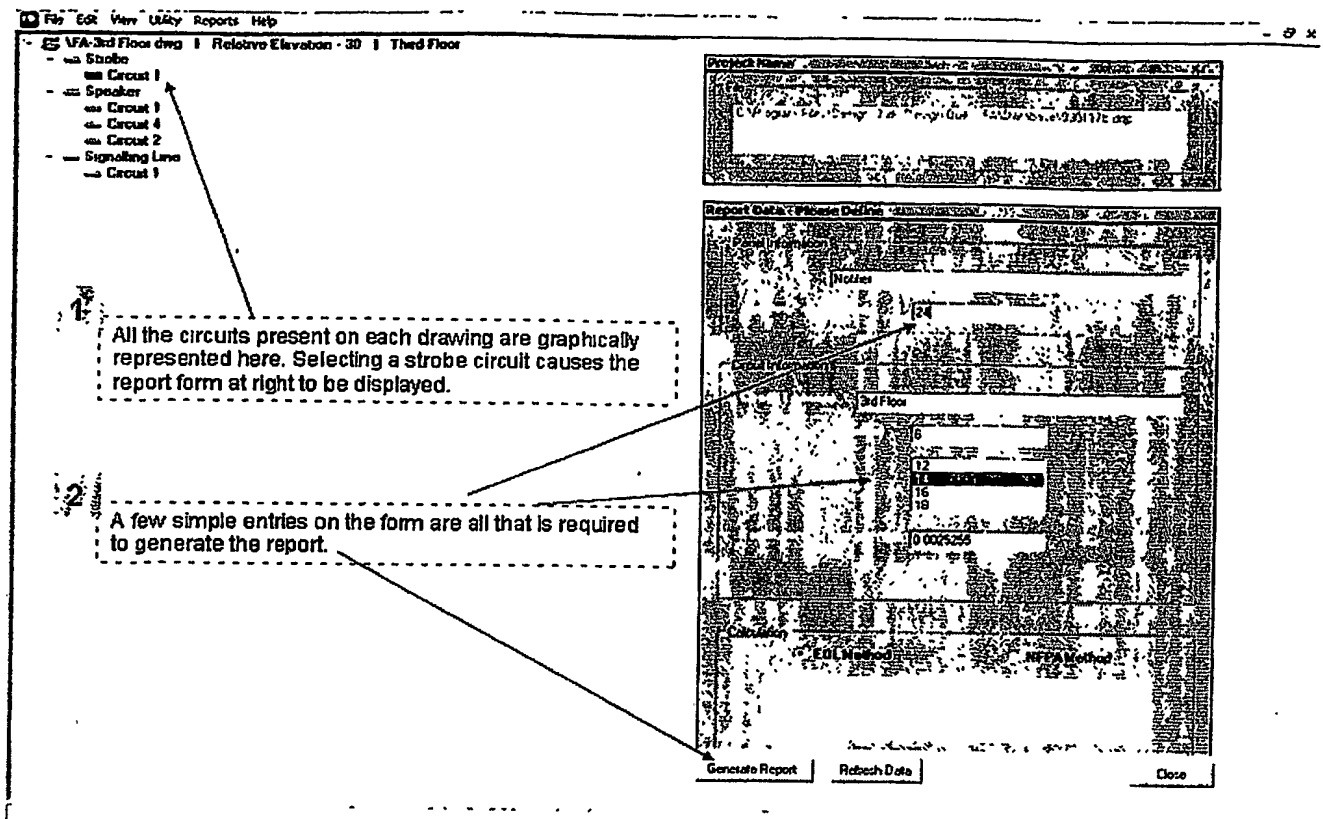


FIG. 17

File Edit View Insert Format Tools Data Window Help

027 - A B C D E F

1	Project Name: 030118a.dgp					
2	Drawing Name	FA-3rd Floor Revised dwg		Applied Panel Voltage	24	Circuit Capacity (Amps) 8
3	Panel Type			Voltage at last device	16 1657502	Power Used 0 815 Amps
4	Circuit No	1		Wire Size(AWG)	14	% of Capacity 10 25%
5	Circuit Type	Strobe		Resistance(Ohms per ft)	0 0025255	
6	Circuit Location					
7						
8	Device No.	Device Current (Amps)	Segment Length from Previous Device (Feet)	Current on Circuit Segment (Amps)	Voltage Drop (Volts DC)	Applied Voltage at Last Device (Volts DC)
9	V-001-1	0 165	58 51929087	0 825	0 618525013	23 38347489
10	V-001-2	0 165	57 10702087	0 88	0 48131893	22 80215808
11	V-001-3	0 165	59 78066009	0 485	0 377888375	22 52428868
12	V-001-4	0 165	125 6506573	0 33	0 529512728	21 89475536
13	V-001-5	0 165	20 13673958	0 185	0 042429782	21 95232717
14						
15	Total Current (Amps)	0 825		Total Voltage Drop	2 047672825	
16						
17						
18	1. The appropriate report for the circuit type selected is generated.					
19						
20	•Voltage drop calcs for NAC circuits					
21	•DB loss calcs for speaker circuits					
22						
23						
24						
25						
26						
27	2. The report is generated in Microsoft Excel format					
28	Customizable for your needs.					
29						
30						
31						
32						
33						
34						
35						

Ready

\\Voltage Drop/

12 Windows Explorer

NUM

FIG. 18

SUBSTITUTE SHEET (RULE 26)

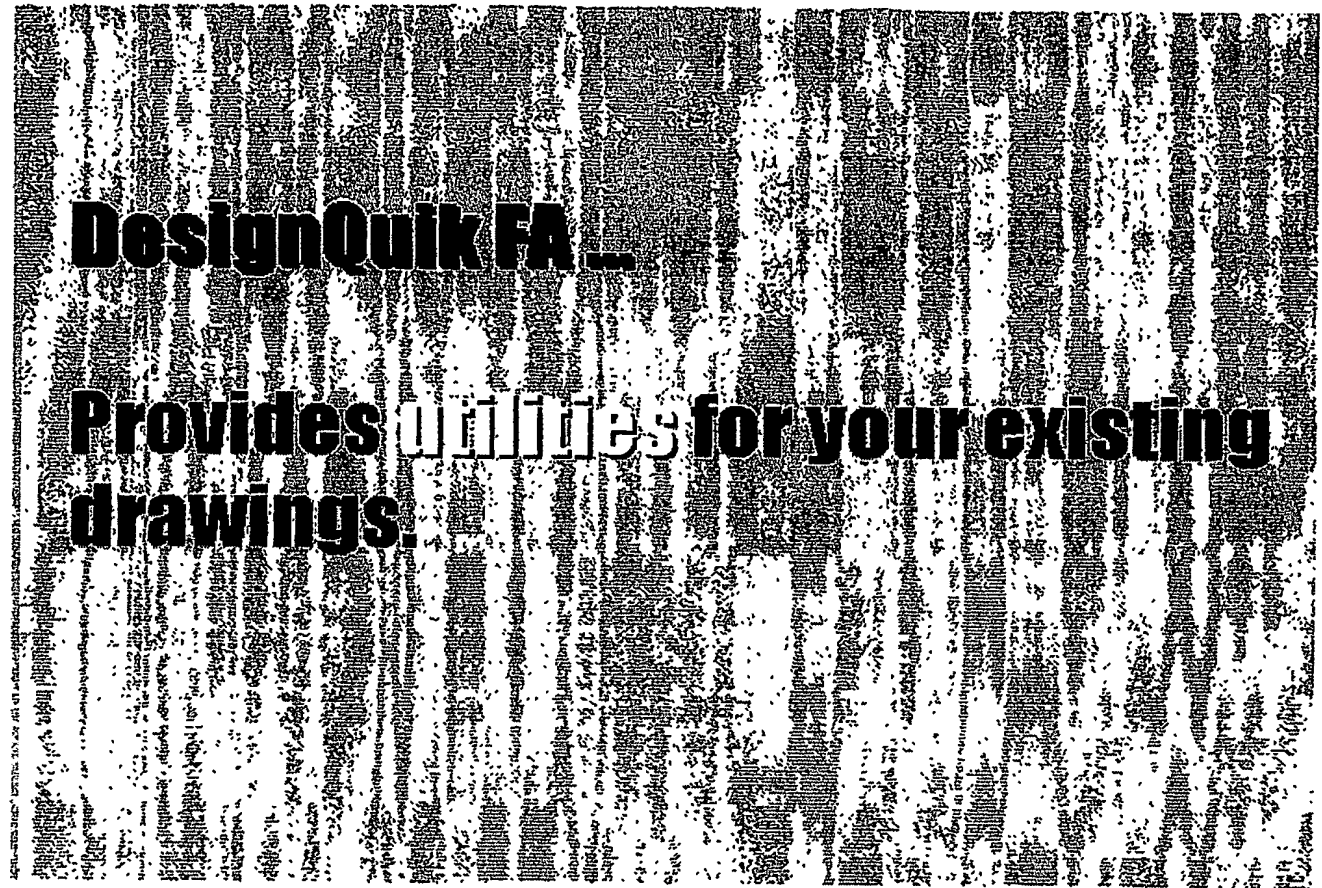


FIG. 19

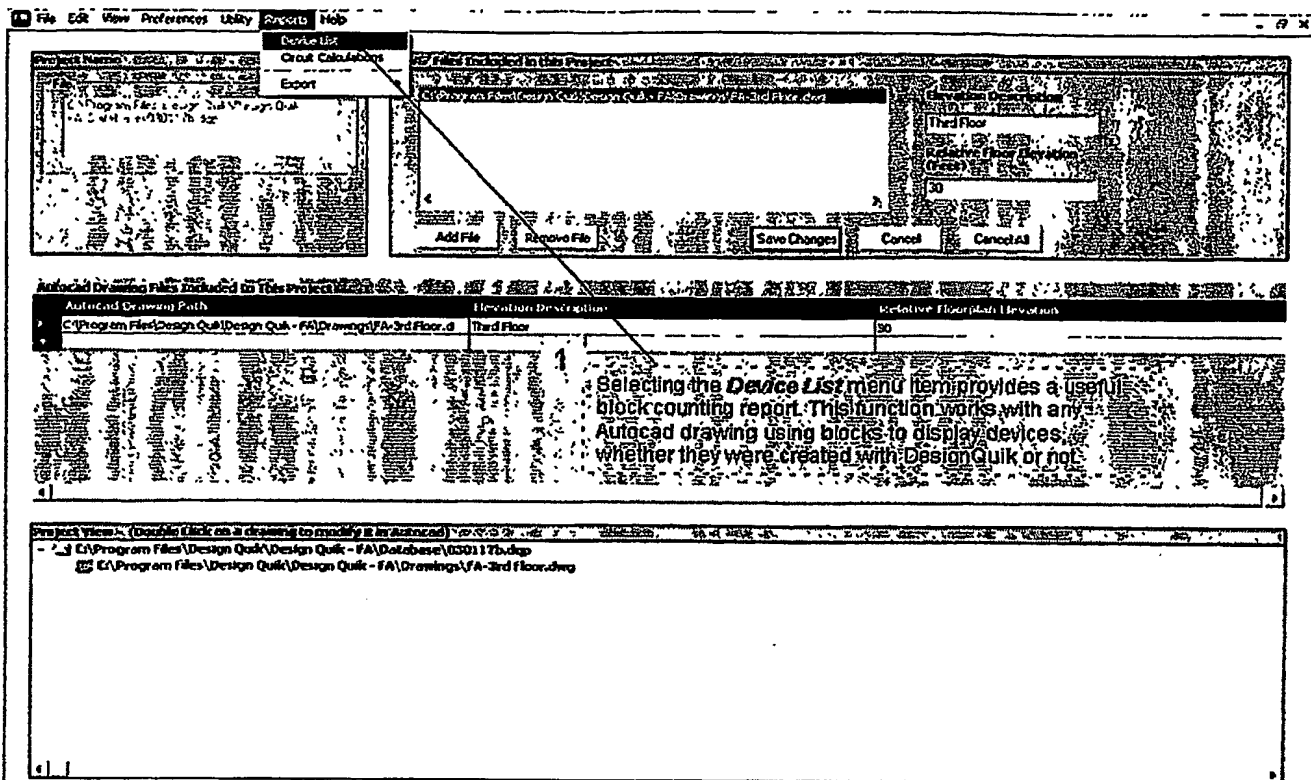


FIG. 20

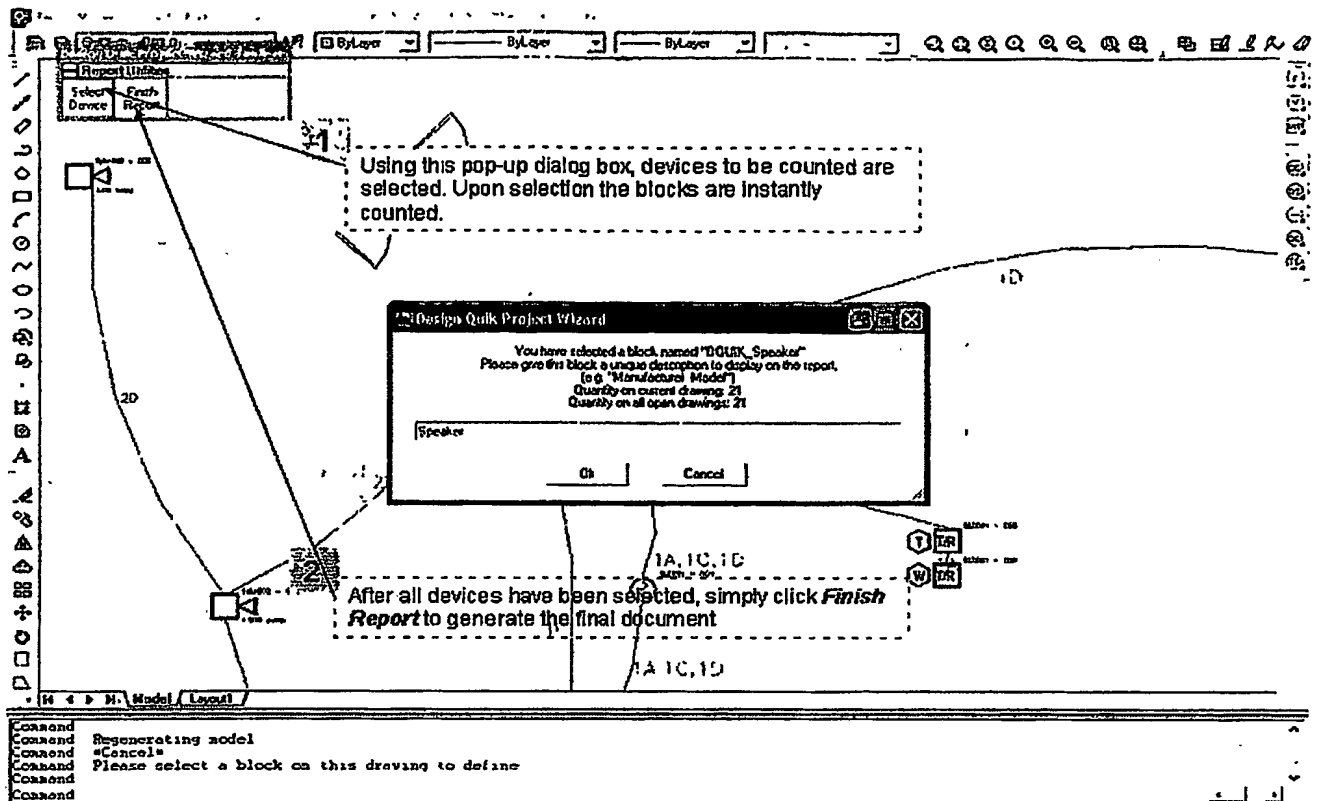


FIG. 21

A					B		C		D	E
Drawing Name					Block Name		Device Name		Quantity	
1	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-3rd Floor.dwg				DQUK_Speaker	Speaker			21	
2	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-3rd Floor.dwg				DQUK_StrobeSeparateNAC	Strobe Only			3	
3	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-3rd Floor.dwg				DQUK_SmokeDetectorAddressable	Addressable Smoke Detector			2	
4	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-3rd Floor.dwg				DQUK_MonitorModule	Monitor Module			2	
5	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-3rd Floor.dwg				DQUK_ValveTampersSwitch	Tamper Switch			1	
6	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-3rd Floor.dwg				DQUK_WaterFlowSwitch	Waterflow Switch			1	
7	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-3rd Floor.dwg				DQUK_PullStationAddr	Manual Pull Station			1	
8	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-3rd Floor.dwg				DQUK_HeatDetectorAddressable	Heat Detector			1	
9	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-3rd Floor.dwg				DQUK_SpeakerStrobe	Speaker Strobe			2	
10										
11										
12	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-4th Floor.dwg				DQUK_Speaker	Speaker			32	
13	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-4th Floor.dwg				DQUK_StrobeSeparateNAC	Strobe Only			6	
14	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-4th Floor.dwg				DQUK_SmokeDetectorAddressable	Addressable Smoke Detector			2	
15	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-4th Floor.dwg				DQUK_MonitorModule	Monitor Module			6	
16	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-4th Floor.dwg				DQUK_ValveTampersSwitch	Tamper Switch			3	
17	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-4th Floor.dwg				DQUK_WaterFlowSwitch	Waterflow Switch			3	
18	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-4th Floor.dwg				DQUK_PullStationAddr	Manual Pull Station			1	
19	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-4th Floor.dwg				DQUK_HeatDetectorAddressable	Heat Detector			1	
20	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-4th Floor.dwg				DQUK_SpeakerStrobe	Speaker Strobe			2	
21										
22	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-5th Floor.dwg				DQUK_Speaker	Speaker			19	
23	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-5th Floor.dwg				DQUK_StrobeSeparateNAC	Strobe Only			4	
24	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-5th Floor.dwg				DQUK_SmokeDetectorAddressable	Addressable Smoke Detector			2	
25	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-5th Floor.dwg				DQUK_MonitorModule	Monitor Module			4	
26	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-5th Floor.dwg				DQUK_ValveTampersSwitch	Tamper Switch			2	
27	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-5th Floor.dwg				DQUK_WaterFlowSwitch	Waterflow Switch			2	
28	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-5th Floor.dwg				DQUK_PullStationAddr	Manual Pull Station			1	
29	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-5th Floor.dwg				DQUK_HeatDetectorAddressable	Heat Detector			1	
30	C:\Program Files\Design Quik\Design Quik - FA\Drawings\FA-5th Floor.dwg				DQUK_SpeakerStrobe	Speaker Strobe			2	
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										
41										
42										
A report of all devices by project drawing and with a totalizing section is the result.										

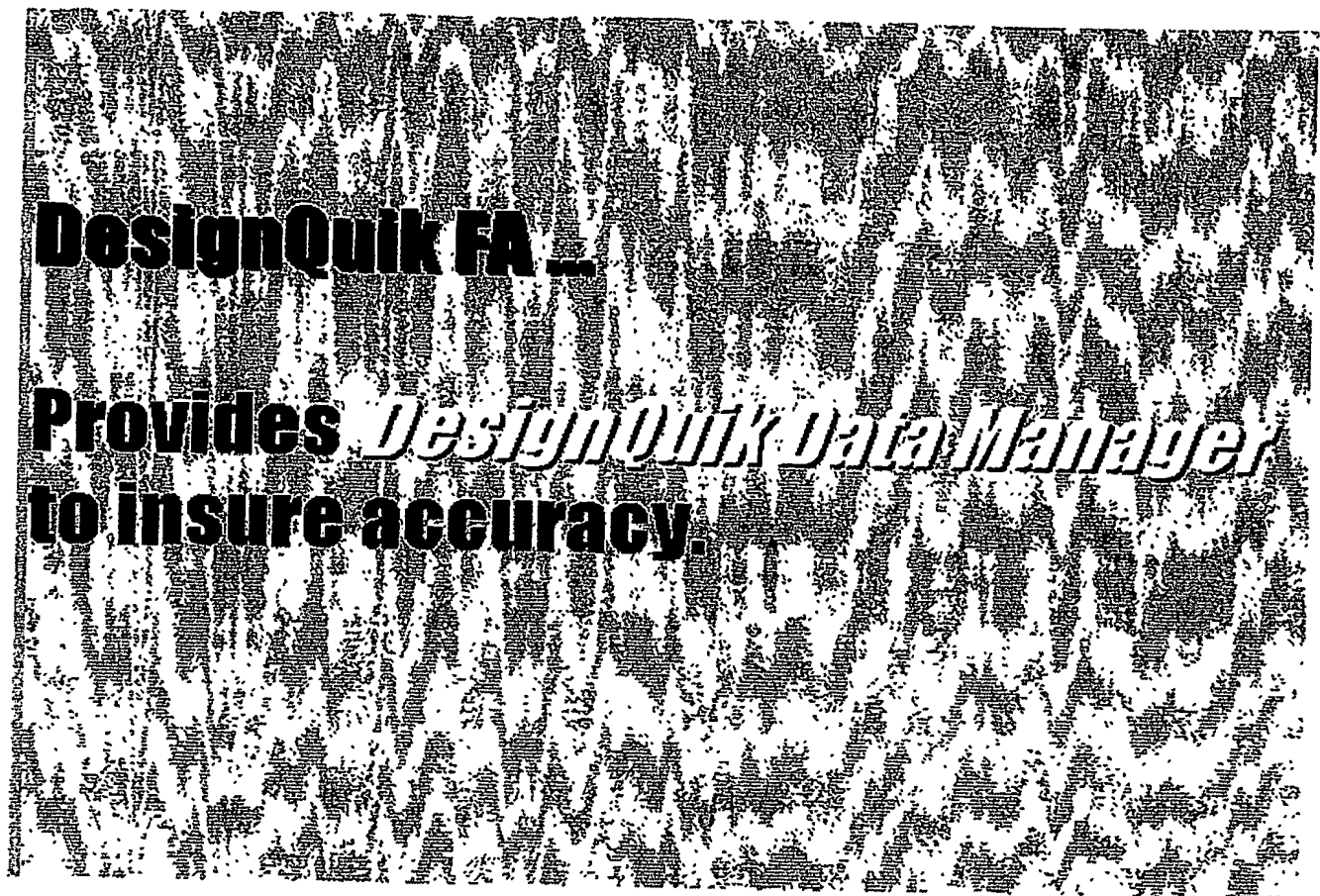


FIG. 23

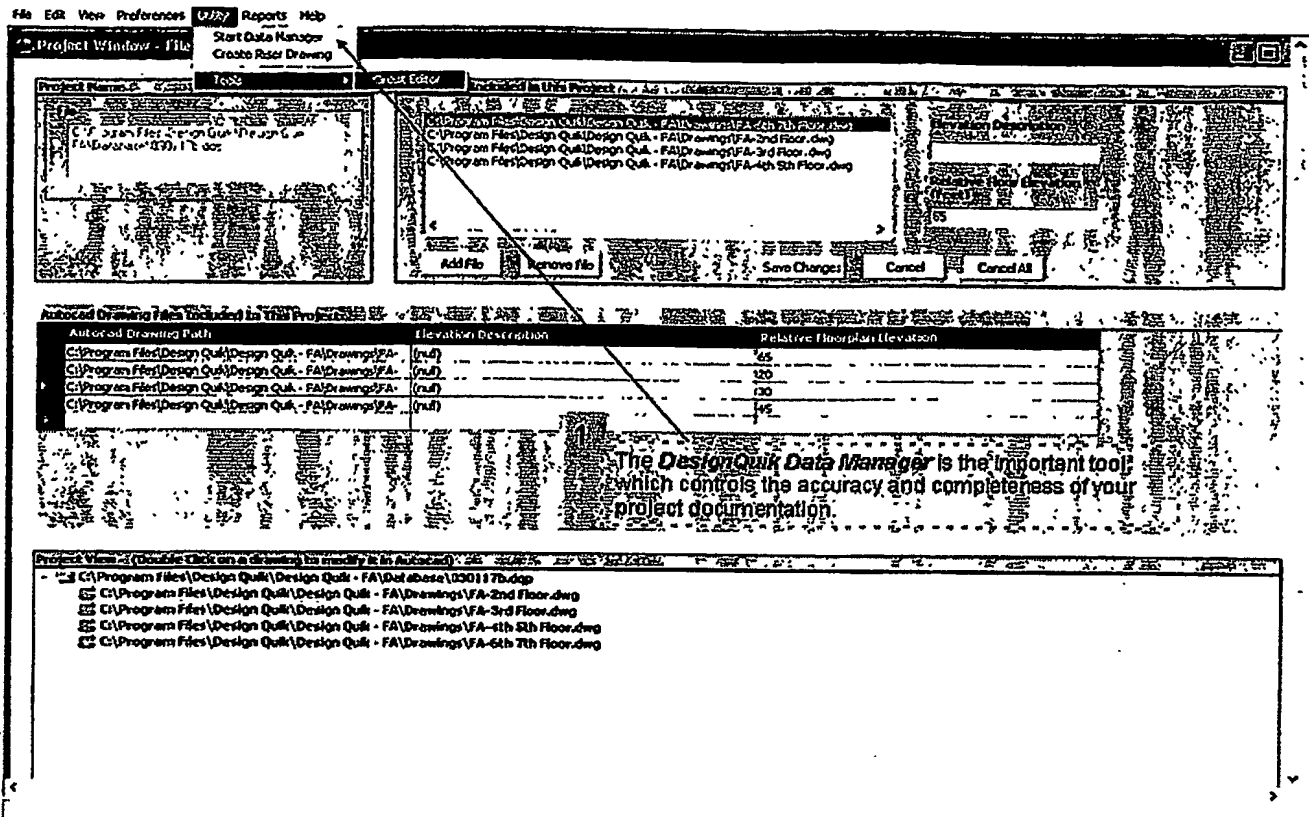


FIG. 24

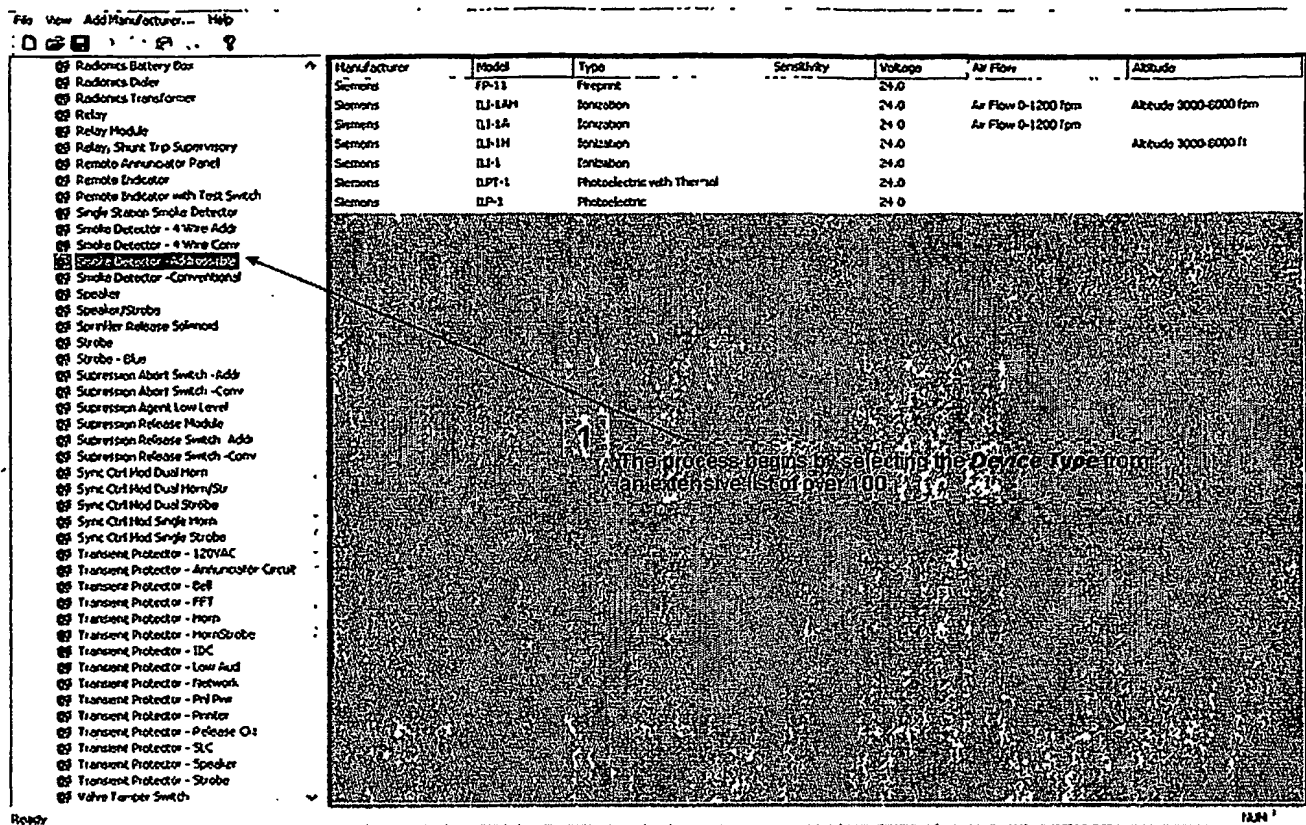


FIG. 25

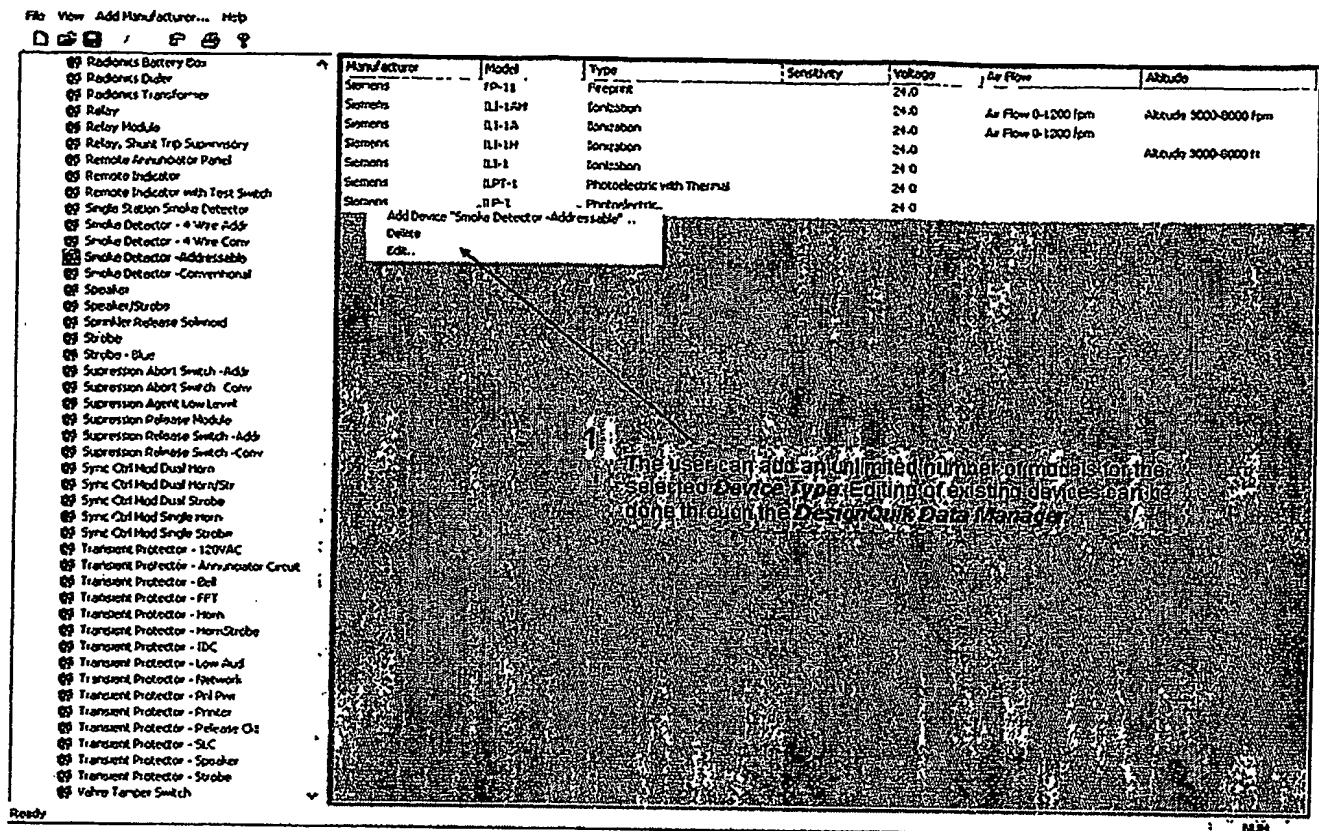


FIG. 26

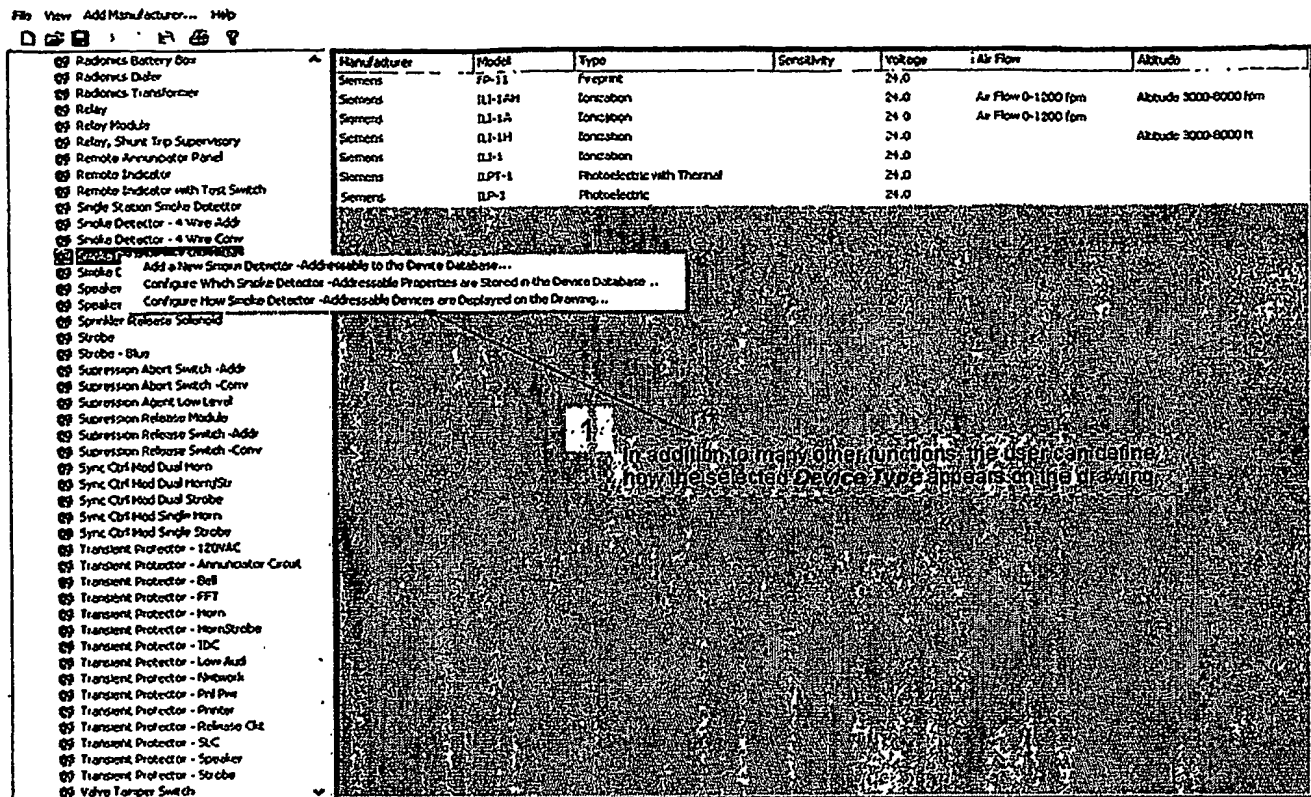


FIG. 27

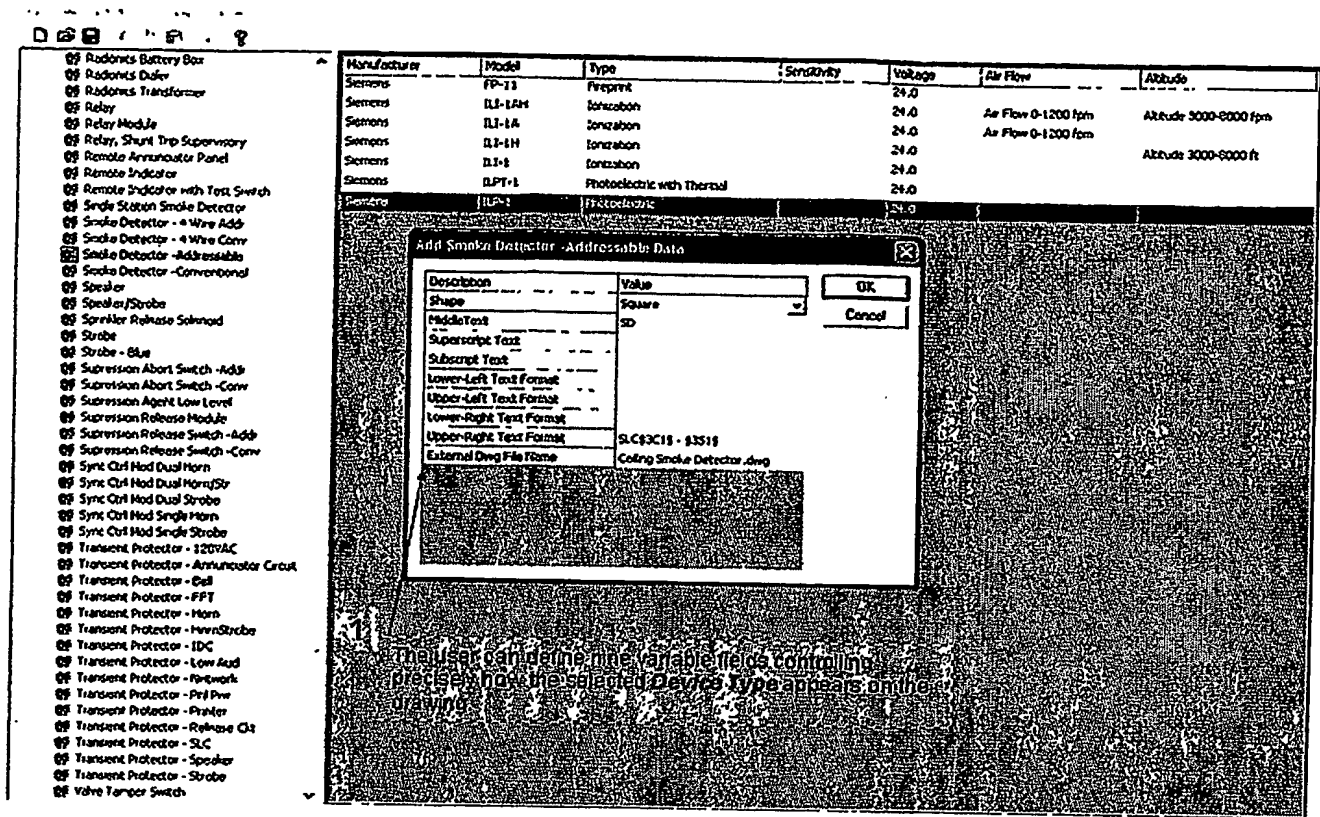


FIG. 28

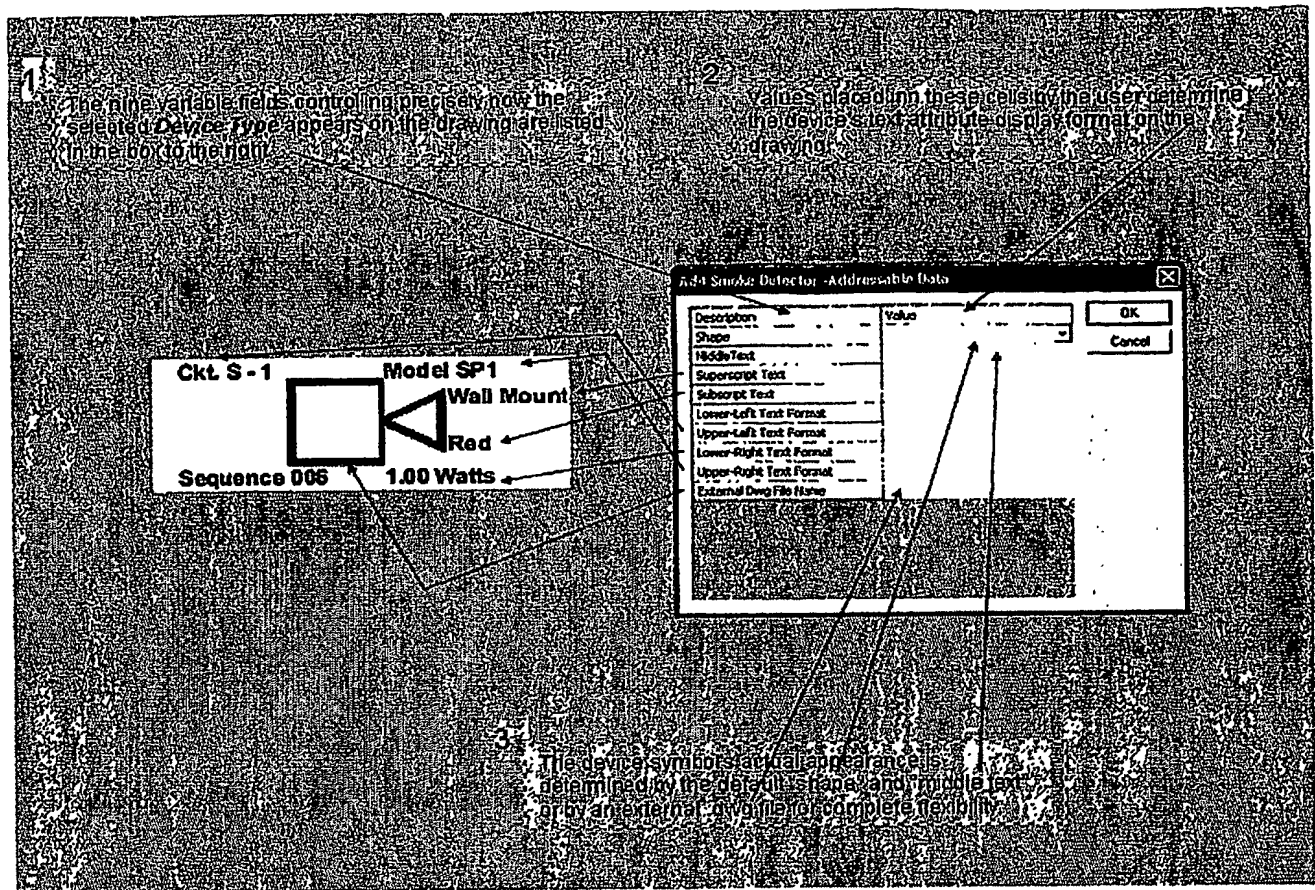


FIG. 29

DesignQuik FA ...

- **Organizes Your Project Files**
- **Partially *Draws Autocad Drawings for you***
- **Actually *Draws Autocad Drawings for you***
- **Creates Sophisticated *Reports for you***
- **Provides *Utilities for your existing drawings***
- **Provides *DesignQuik Data Manager to insure accuracy***

FIG. 30

[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

Introduction

DesignQuik[®]-FA is a tool that links fire alarm system design with document preparation. It assists the user with speedy preparation of fire alarm system floor plans using AutoCAD version 2002 or higher.

DesignQuik[®] uses the information from the floor plans to generate other critical submittal documents such as riser diagrams, voltage drop calculations, and system bills of material.

The following easy steps are used to develop complete system documentation:

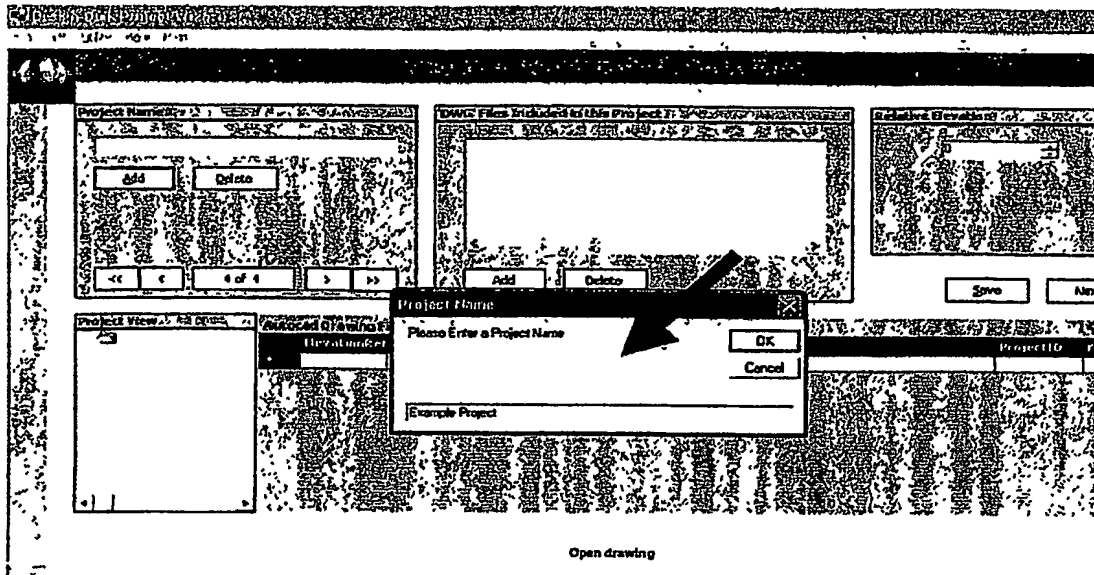
1. Start DesignQuik[®] software
2. Define the project
 - 2.1. Project name
 - 2.2. List project floor plan files (.dwg files) and set relative elevations
3. Prepare floor plans using AutoCAD
 - 3.1. Select fire alarm devices from a user-defined database
 - 3.2. Place devices on the floor plan.
 - 3.3. Connect devices by simple mouse click.
4. Request documents by mouse click
 - 4.1. Floor plans
 - 4.2. Riser diagram
 - 4.3. Panel diagram
 - 4.4. Voltage and decibel drop calculations
 - 4.5. Equipment list/bill of material

Detailed instruction follow this page. Go to [Next Page](#)

[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)**FIG. 31**

[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

The "Project Name" dialog box will be displayed. Type the project name and click OK.



The screen display will now look like the figure below. Now add a floor plan drawing to the project drawing list by clicking on the "Add" button.

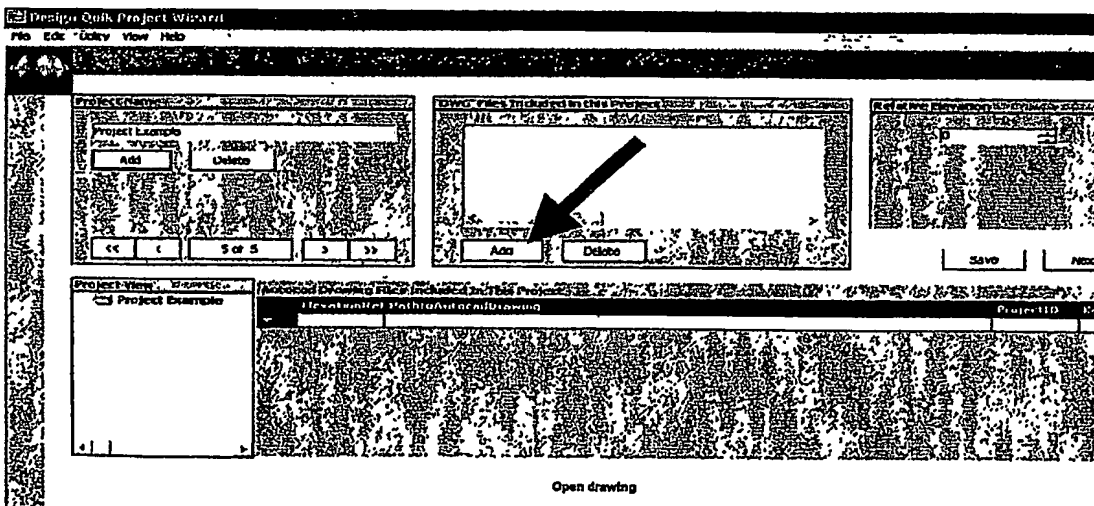
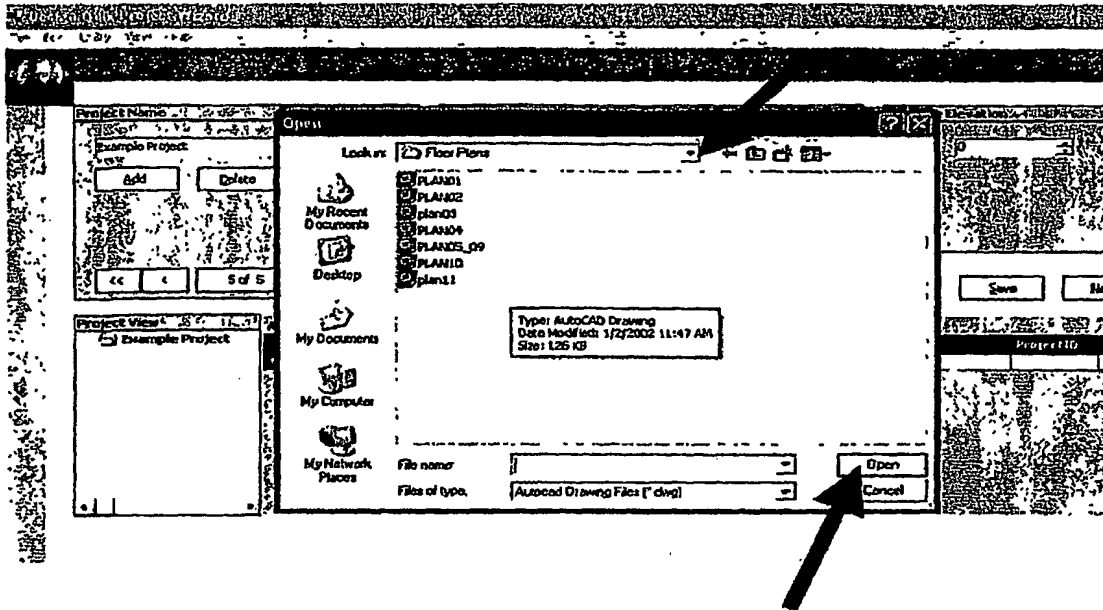
[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

FIG. 32

[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

The screen will show the following display. From this screen, it is possible to browse your files and select a drawing to add to the project list. To browse, use the pull down arrow shown below.



Click on the drawing you wish to add to the list, then click the "Open" button. The following screen will be displayed, with the drawing added to the project list.

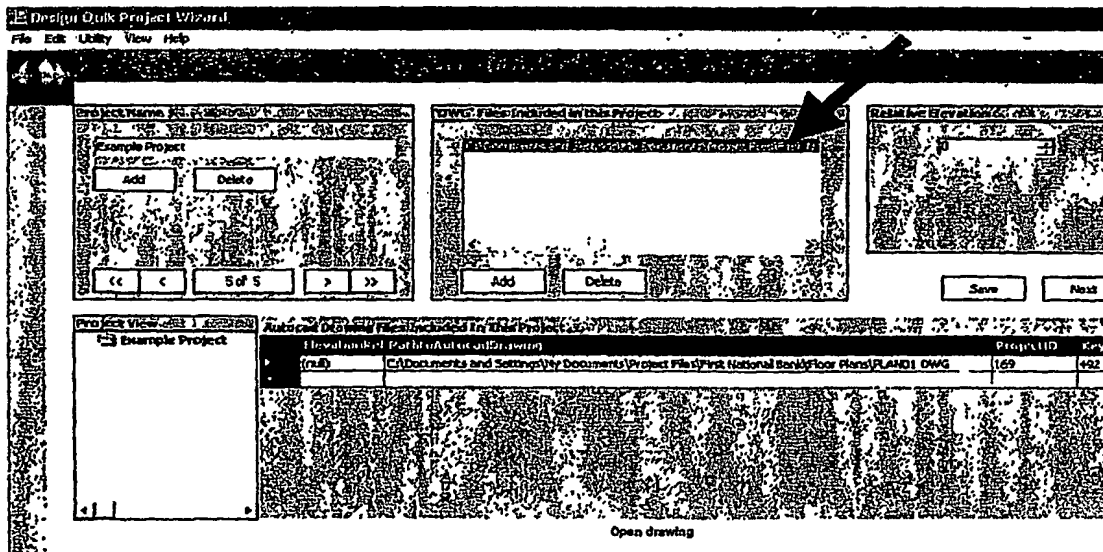
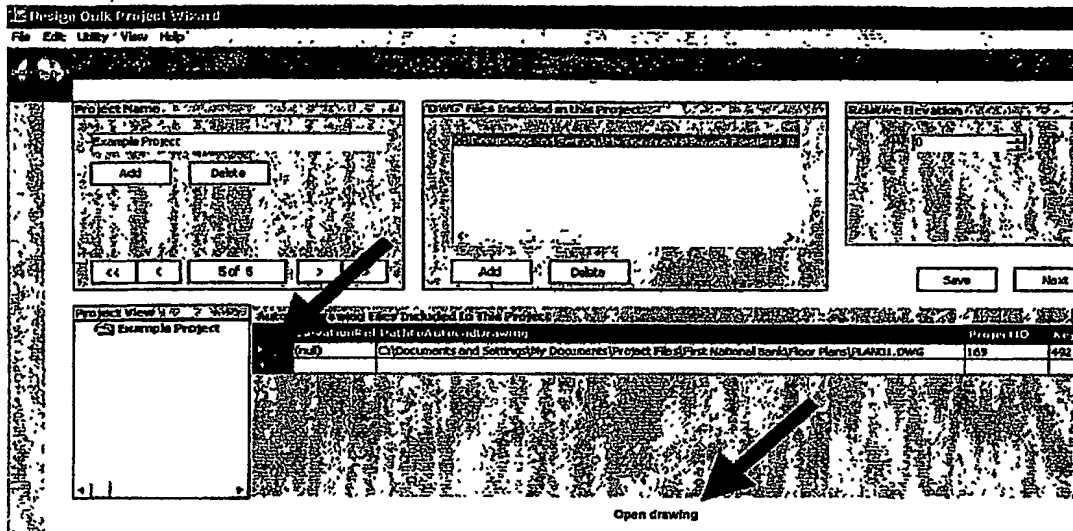


FIG. 33

[\[Previous Page\]](#) [\[Next Page\]](#) [\[Return To Beginning\]](#)

1. Prepare floor plans using AutoCAD

In order to begin working on a floor plan, open the drawing by selecting it from the drawing list and clicking on the "Open Drawing" button.



AutoCAD will automatically start and the drawing will be opened. In addition to the regular menu items, a "DesignQuik" menu item will be present at the top of the screen.

[\[Previous Page\]](#) [\[Next Page\]](#) [\[Return To Beginning\]](#)

FIG. 34

[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

DesignQuik[®] will automatically start AutoCAD and open the drawing. Notice that there is a special menu item for DesignQuik[®] functions.

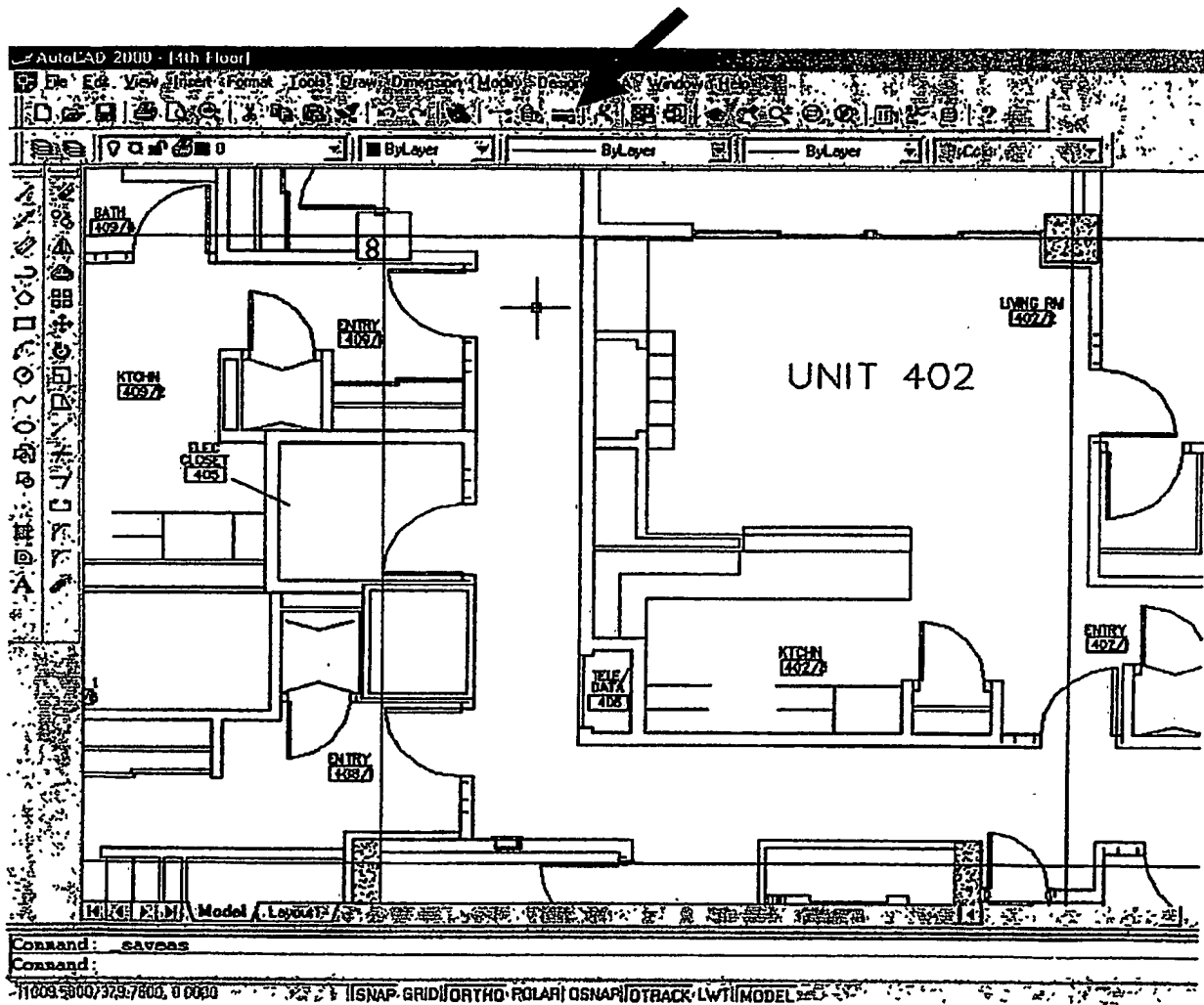
[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

FIG. 35

[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

The **DesignQuik**® Project Wizard will automatically start AutoCAD and open the drawing. Notice that there is a special menu item for **DesignQuik**® functions, and toolbars with slide out buttons docked on the right and floating in the model space.

**FIG. 36A**

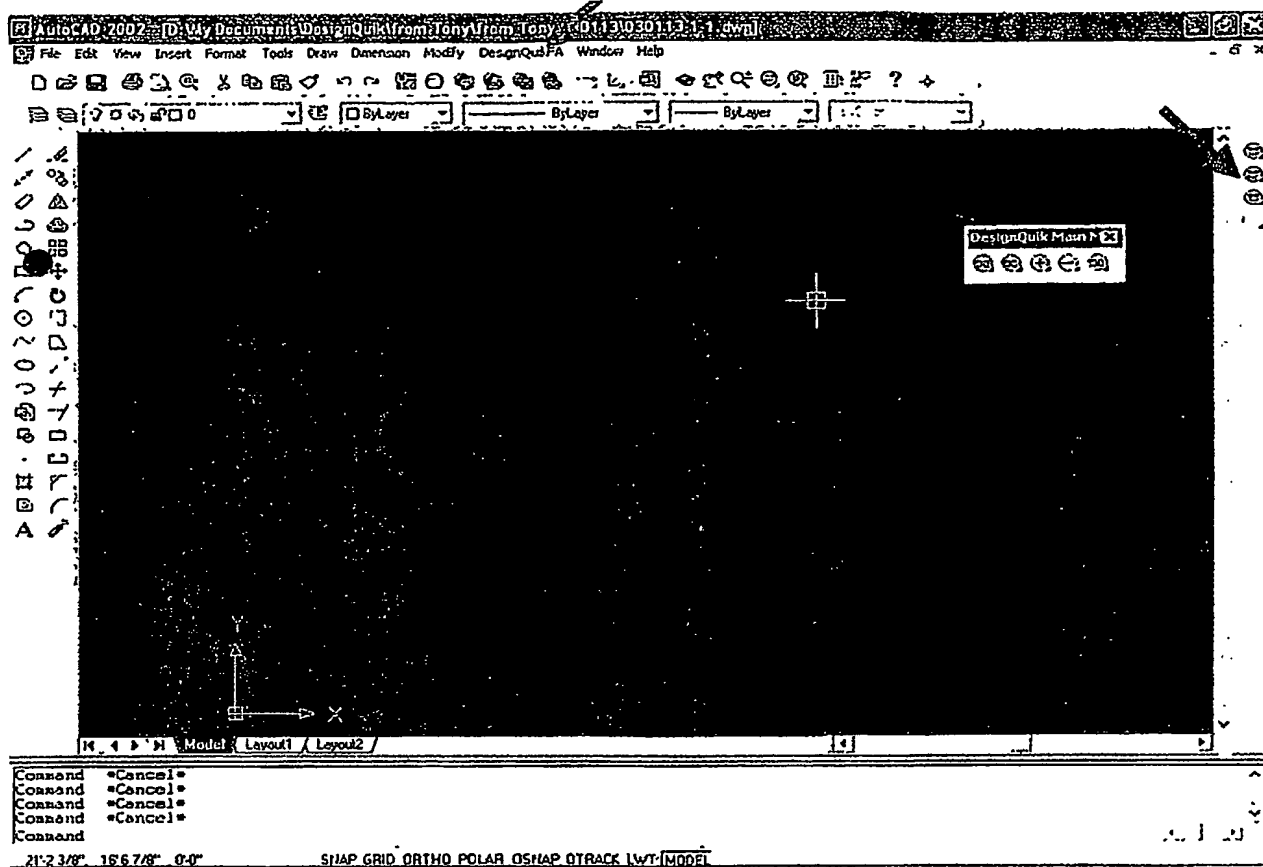


FIG. 36B

[Previous Page]

[Next Page]

[Return To Beginning]

The floating toolbar can be dragged and docked. Each toolbar button represents a DesignQuik command. Each toolbar button on the side toolbar represents a fire alarm device from the Project Device List.

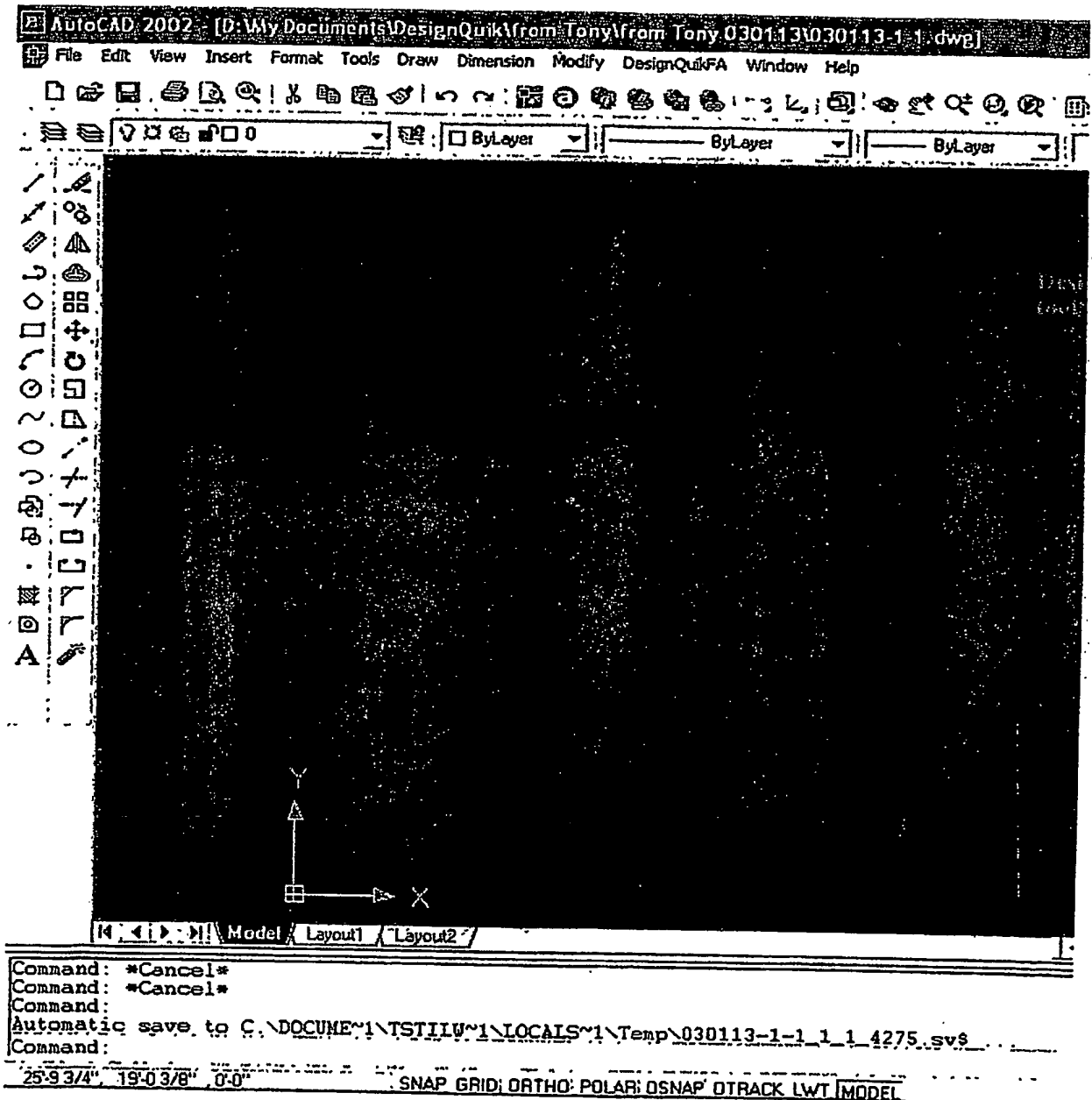


FIG. 37A

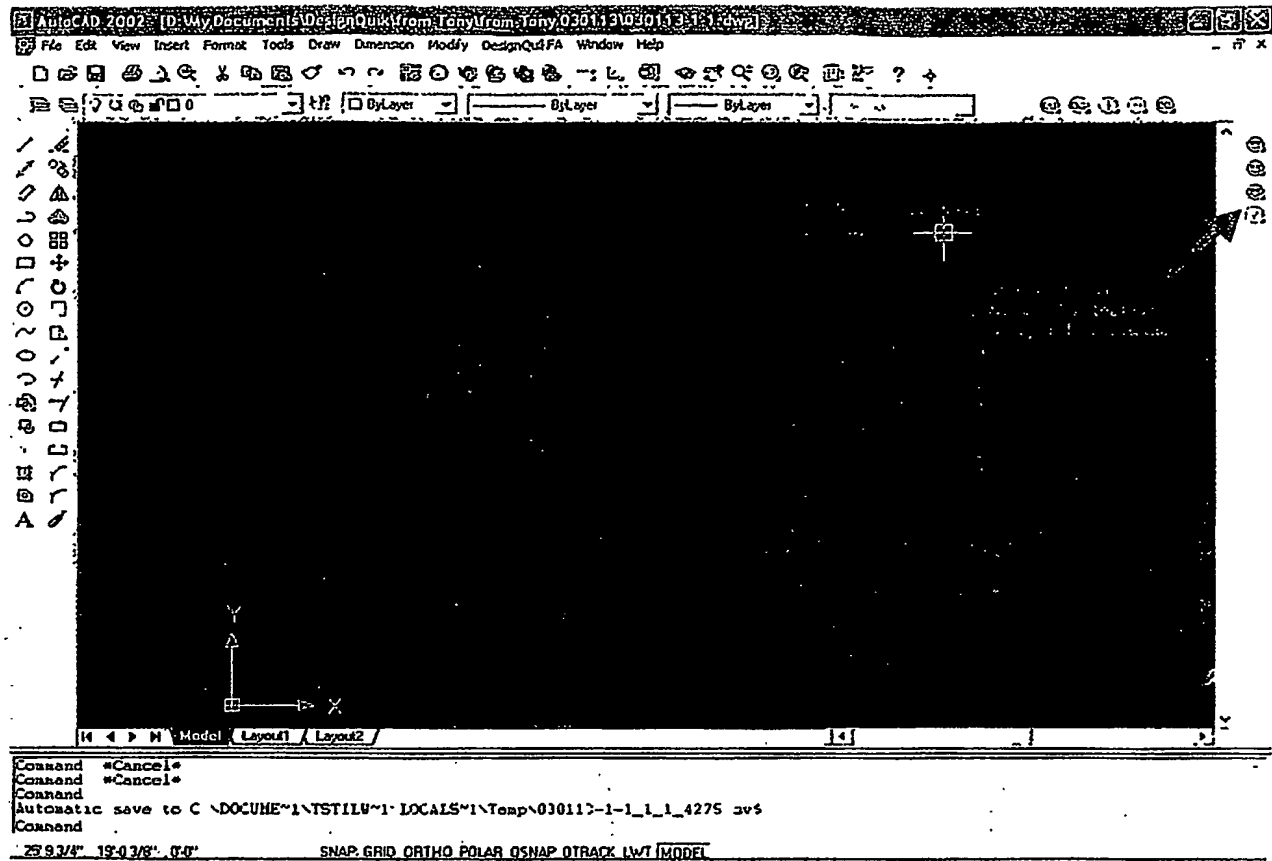


FIG. 37B

[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

To get started placing the fire alarm system on the floor plan, click on the **DesignQuik®** menu and select "Device Placement". A submenu will present the devices from the Project Device List for selection and placement. Alternatively, you may select from the toolbars on the right. (see next slide)

FIG. 38

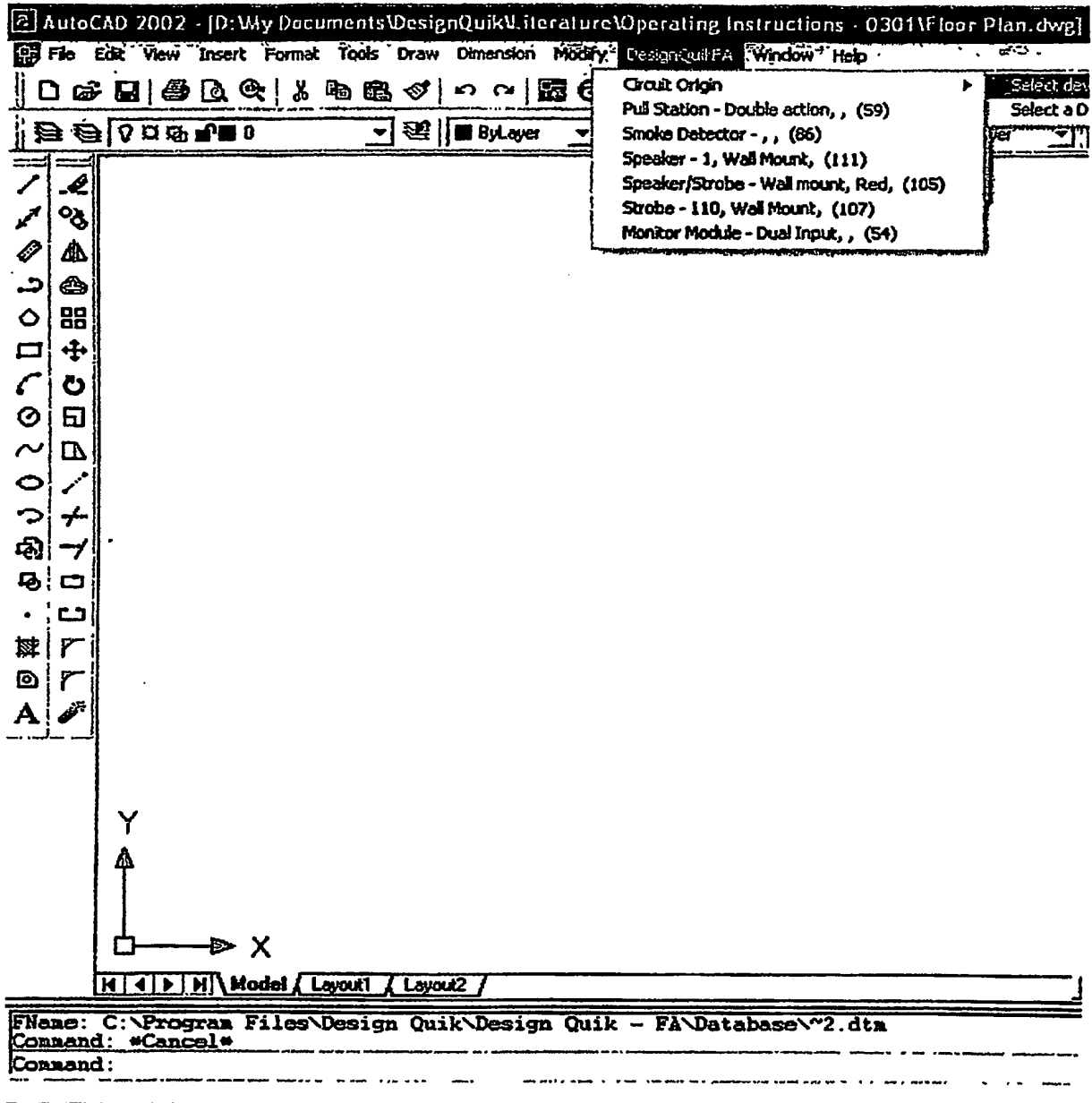
[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

FIG. 39A

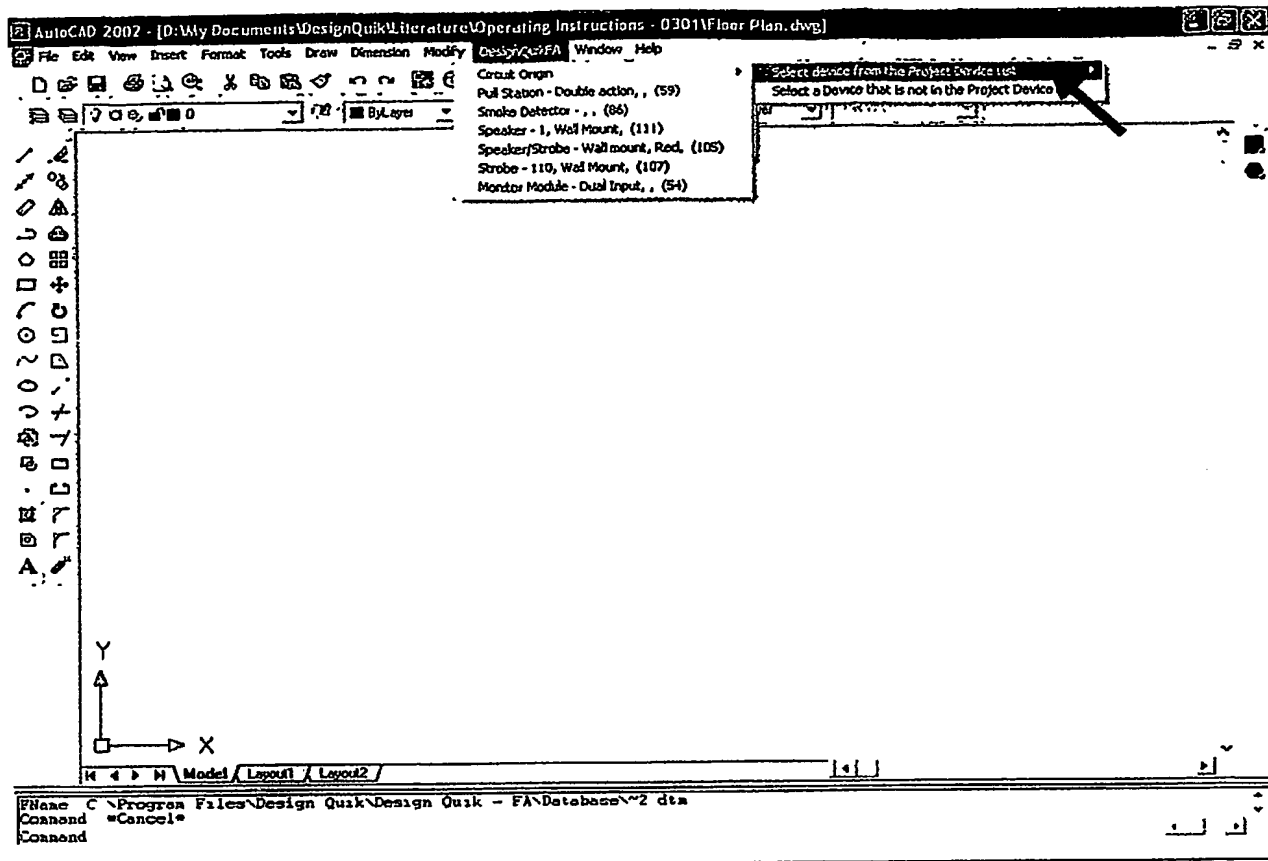


FIG. 39B

[\[Previous Page\]](#) [\[Next Page\]](#) [\[Return To Beginning\]](#)

The toolbars offer a quick, easy alternative to using the menu for selecting and placing items. Hold the mouse cursor over the toolbar and hold down the left mouse button to view the "slide out" toolbar buttons. While continuing to hold down the left mouse button, slide the mouse cursor over the individual toolbar buttons to view the specific devices for selection. Note that the tooltip text displays the device and certain useful characteristics for quick, accurate selection.

FIG. 40

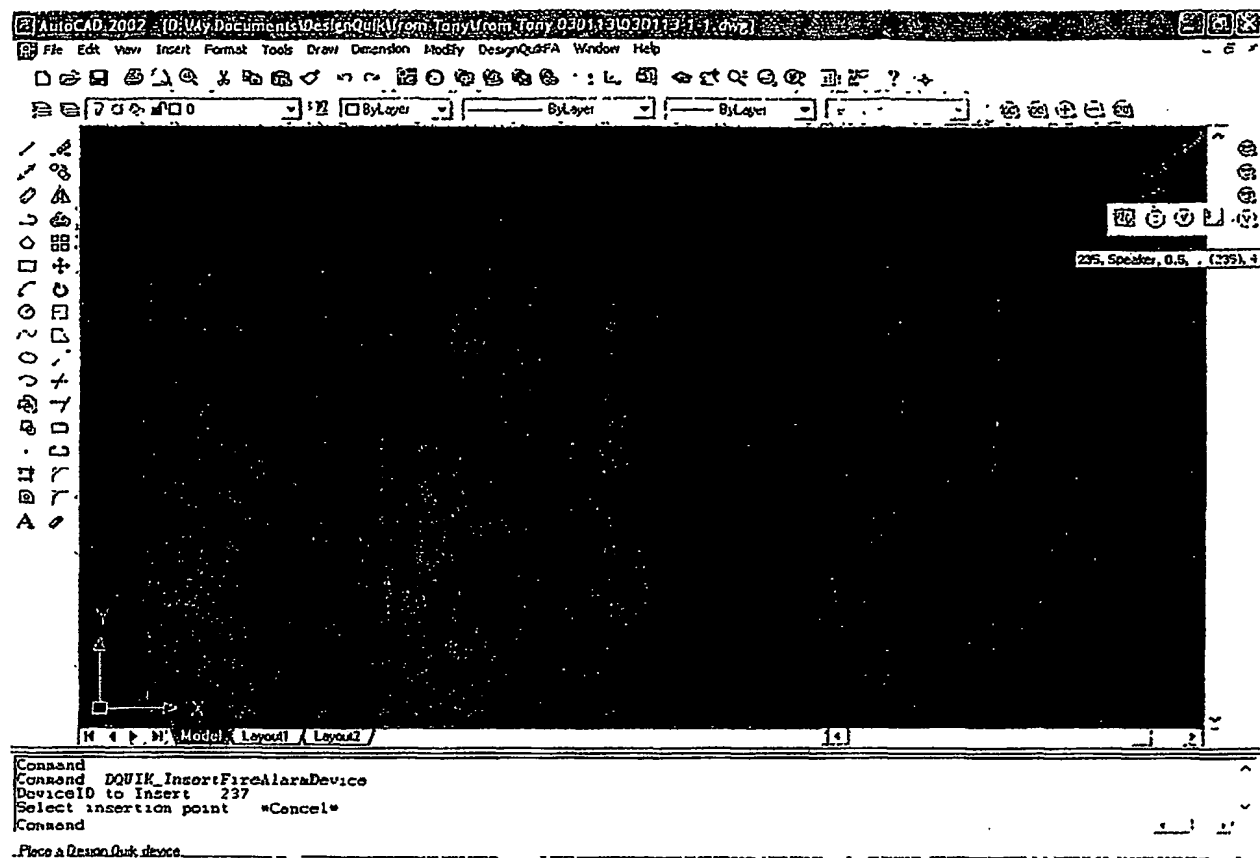


FIG. 41

[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

Select the first device, as prompted in the Command line. Connect devices must begin with a Circuit Origin or a previously connected device.

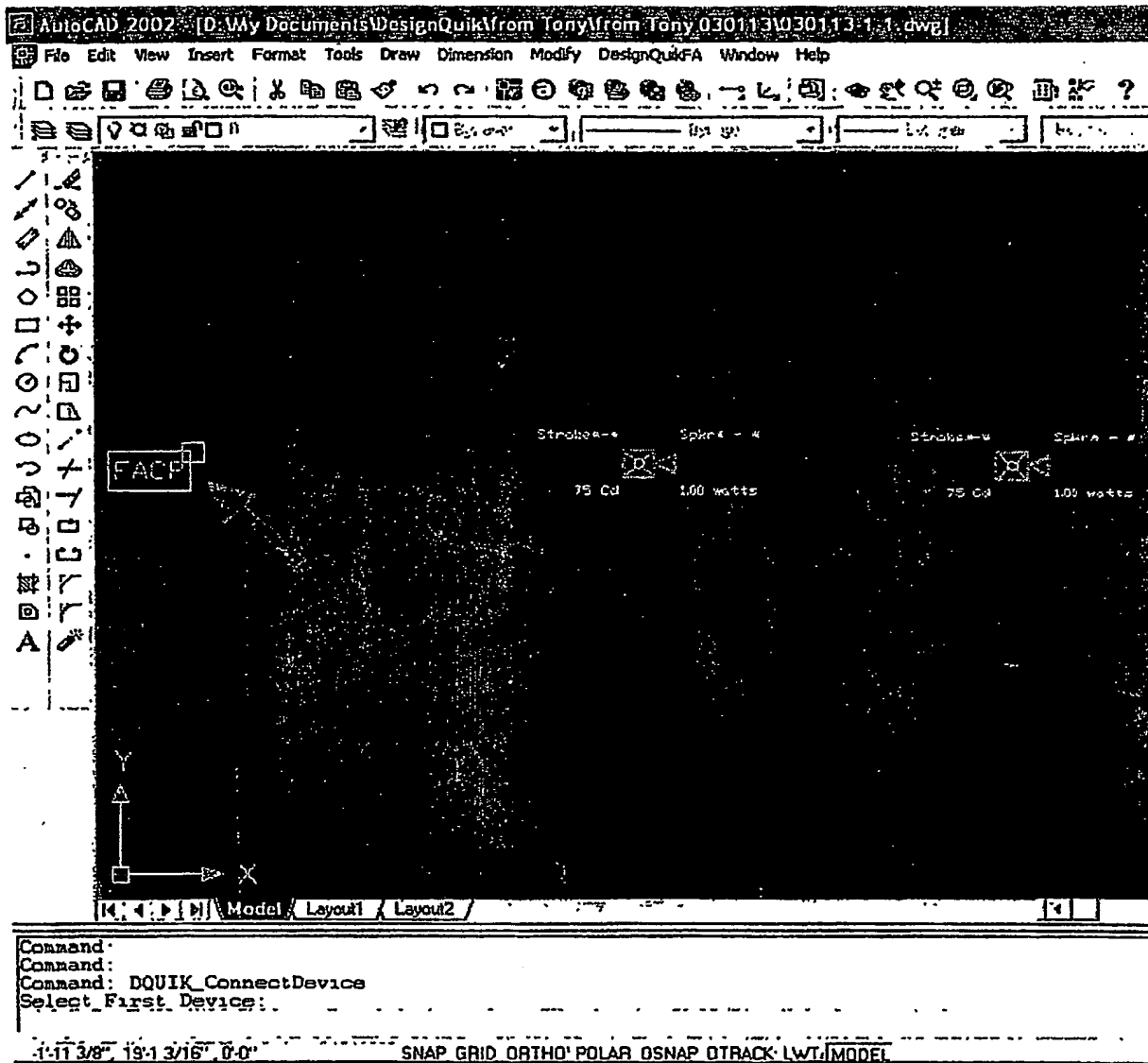
[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

FIG. 42A

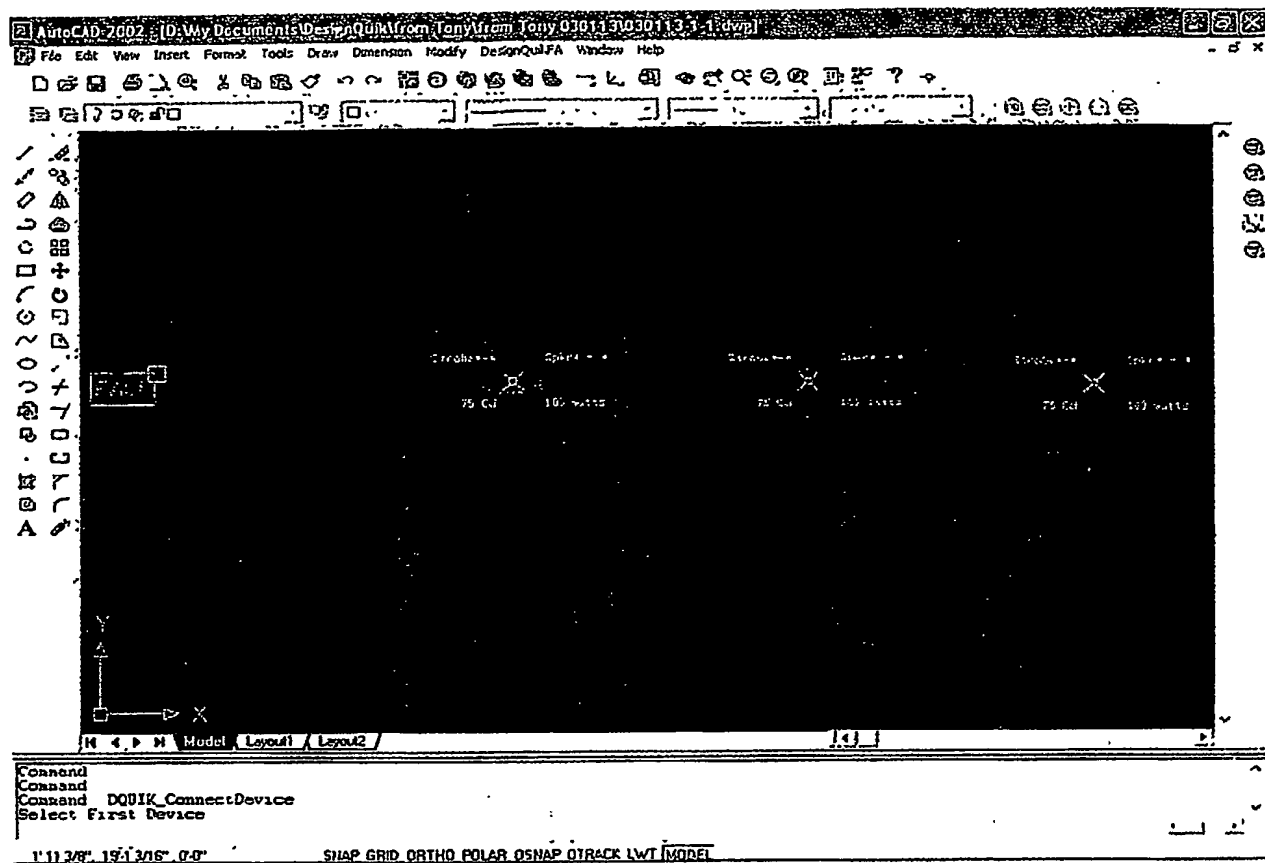


FIG. 42B

[Previous Page]

[Next Page]

[Return To Beginning]

A dialog box will appear to offer options for circuit shape. Since the first device is a speaker strobe, the software will automatically choose speaker and strobe circuits for connection to the device. Click OK to select a Curve shape wireway.

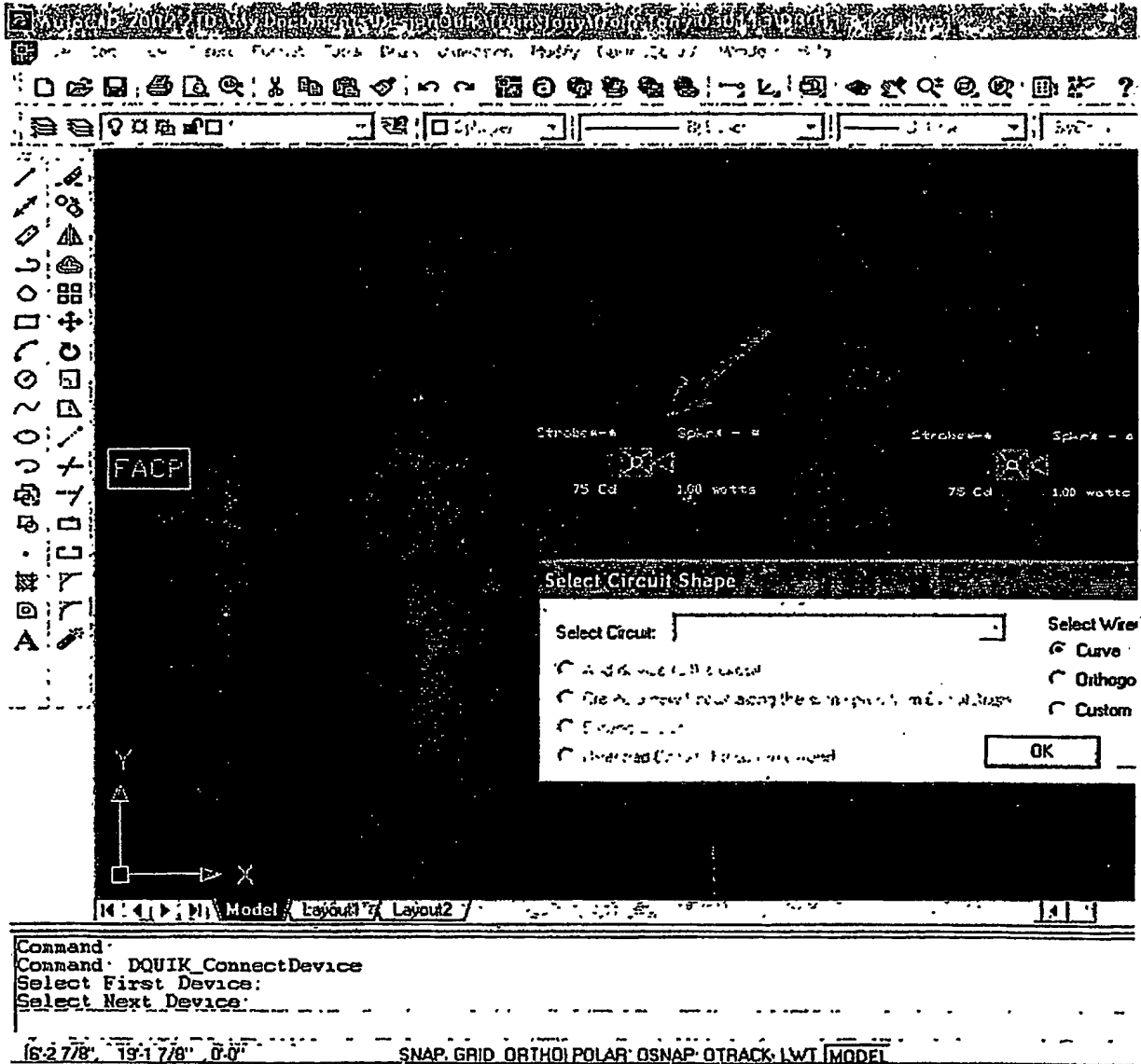


FIG. 43A

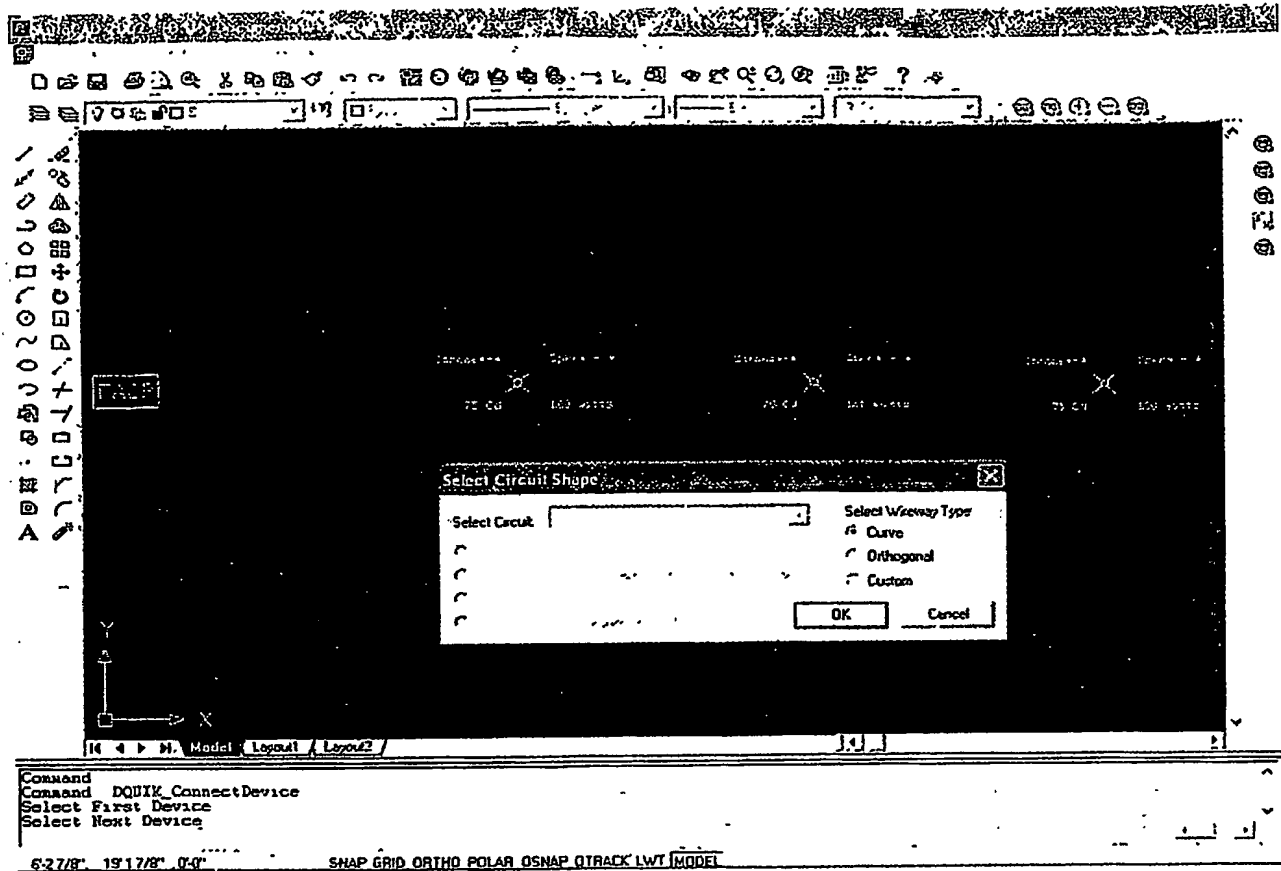


FIG. 43B

[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

A curve wireway connects the FACP to the first device. The Wiretext displays the circuits in the wireway. The device circuit and sequence numbers are displayed, for the strobe and the speaker. The speaker wattage and the strobe candela output are also displayed. In the command line, the user is prompted to select the next device for connection.

FIG. 44

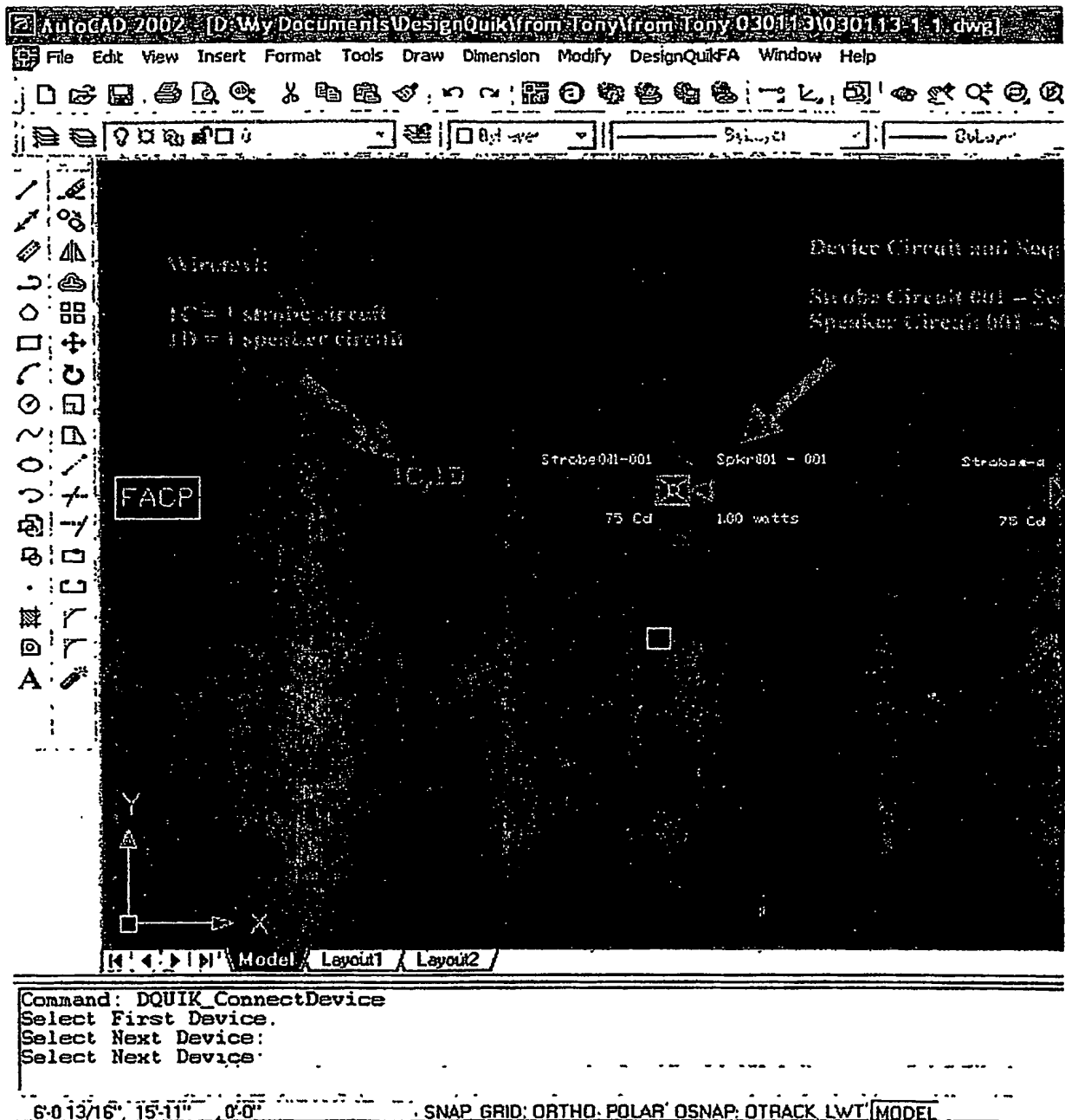

[\[Previous Page\]](#)
[\[Next Page\]](#)
[\[Return To Beginning\]](#)

FIG. 45A

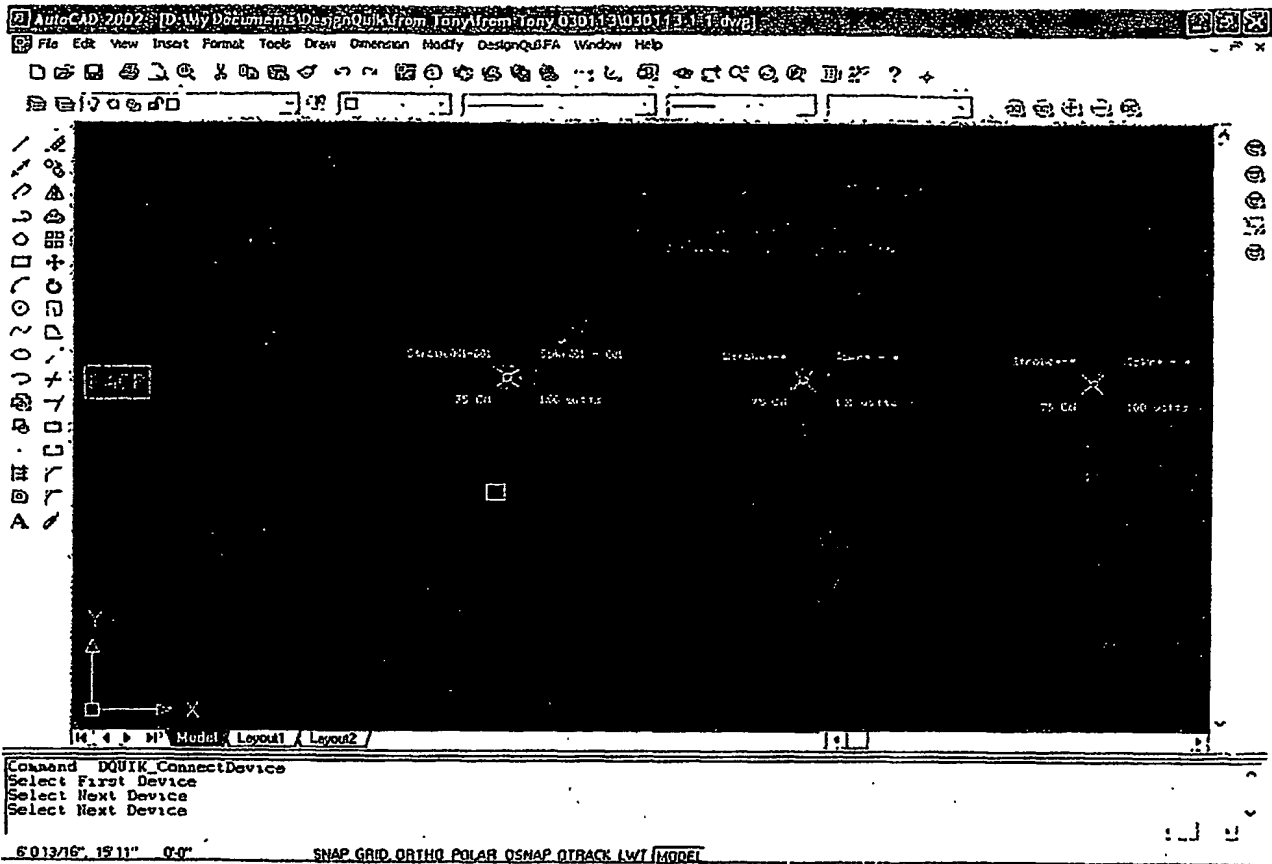
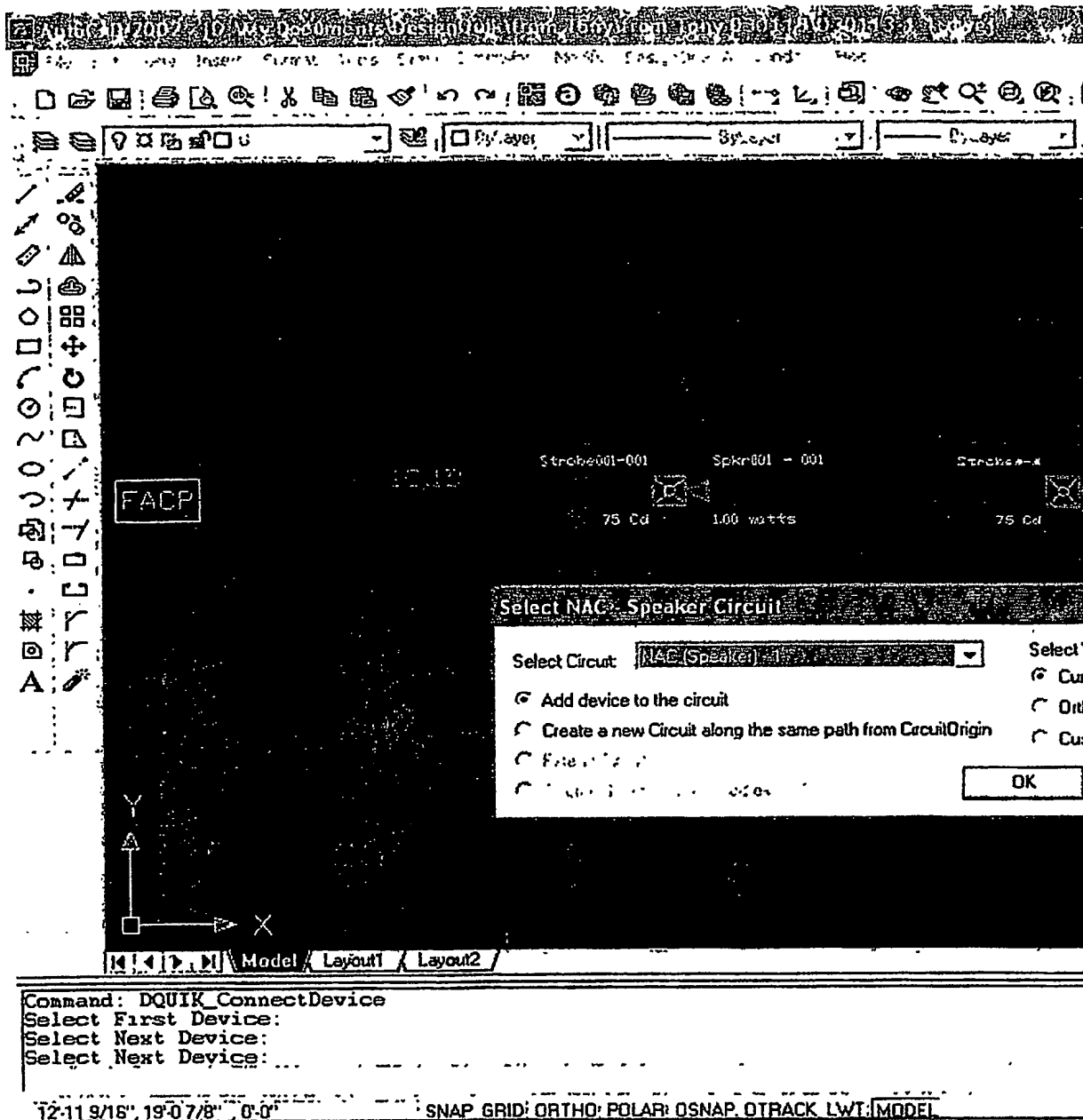


FIG. 45B

[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

When the second device is selected for connection, the dialog box appears again. By selection of the proper radio button, the user is allowed to either connect the next speaker to the same circuit, or to "pull" a new circuit from the FACP (Circuit Origin) to the second device. For this example, choose "Add device to the circuit". Also, a curve wireway shape will be selected.

FIG. 46



[Previous Page]

[Next Page]

[Return To Beginning]

FIG. 47A

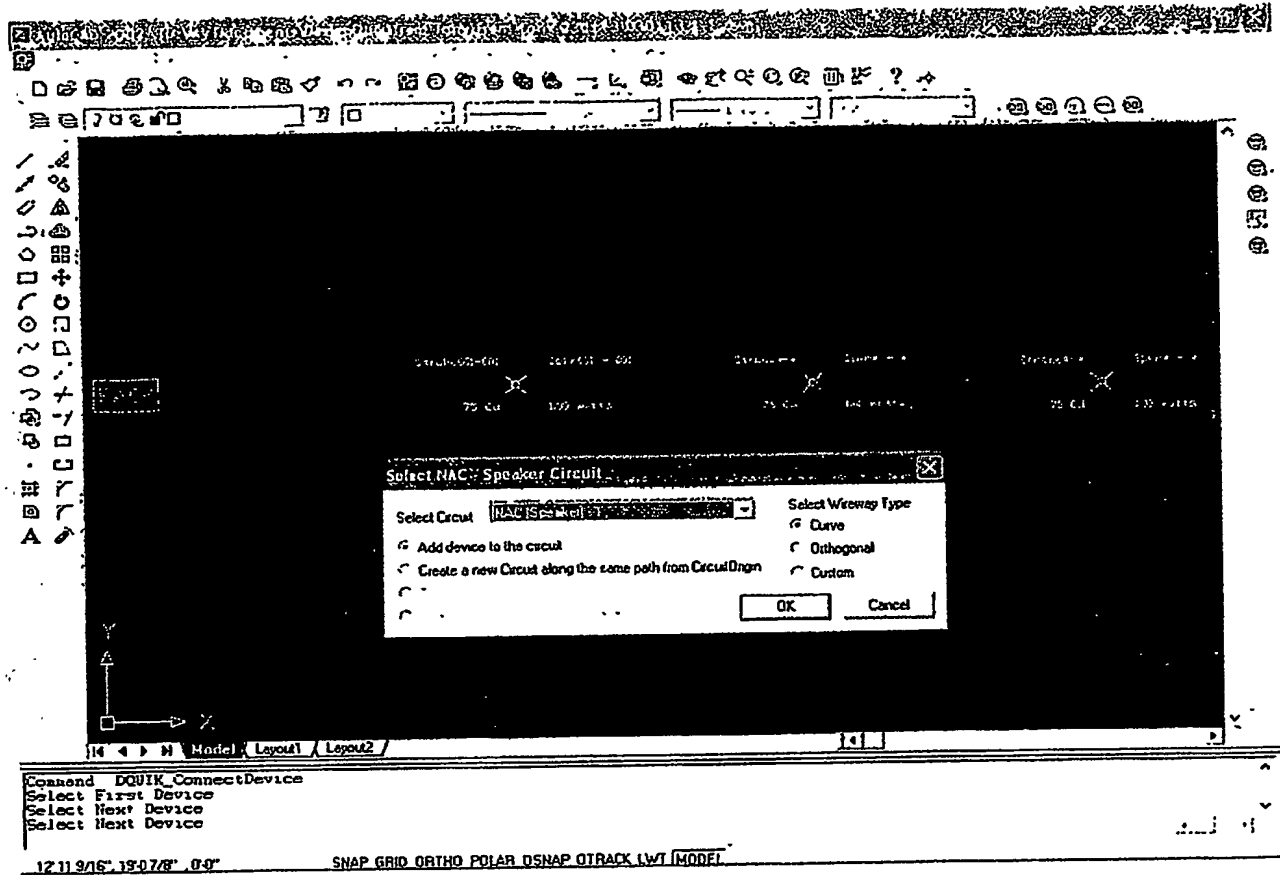


FIG. 47B

[Previous Page]

[Next Page]

[Return To Beginning]

Once the speaker circuit is selected, another dialog box is used to select the connection of the strobe. If OK is clicked now, a new strobe circuit will be created through the same wireway as Speaker Circuit 001.

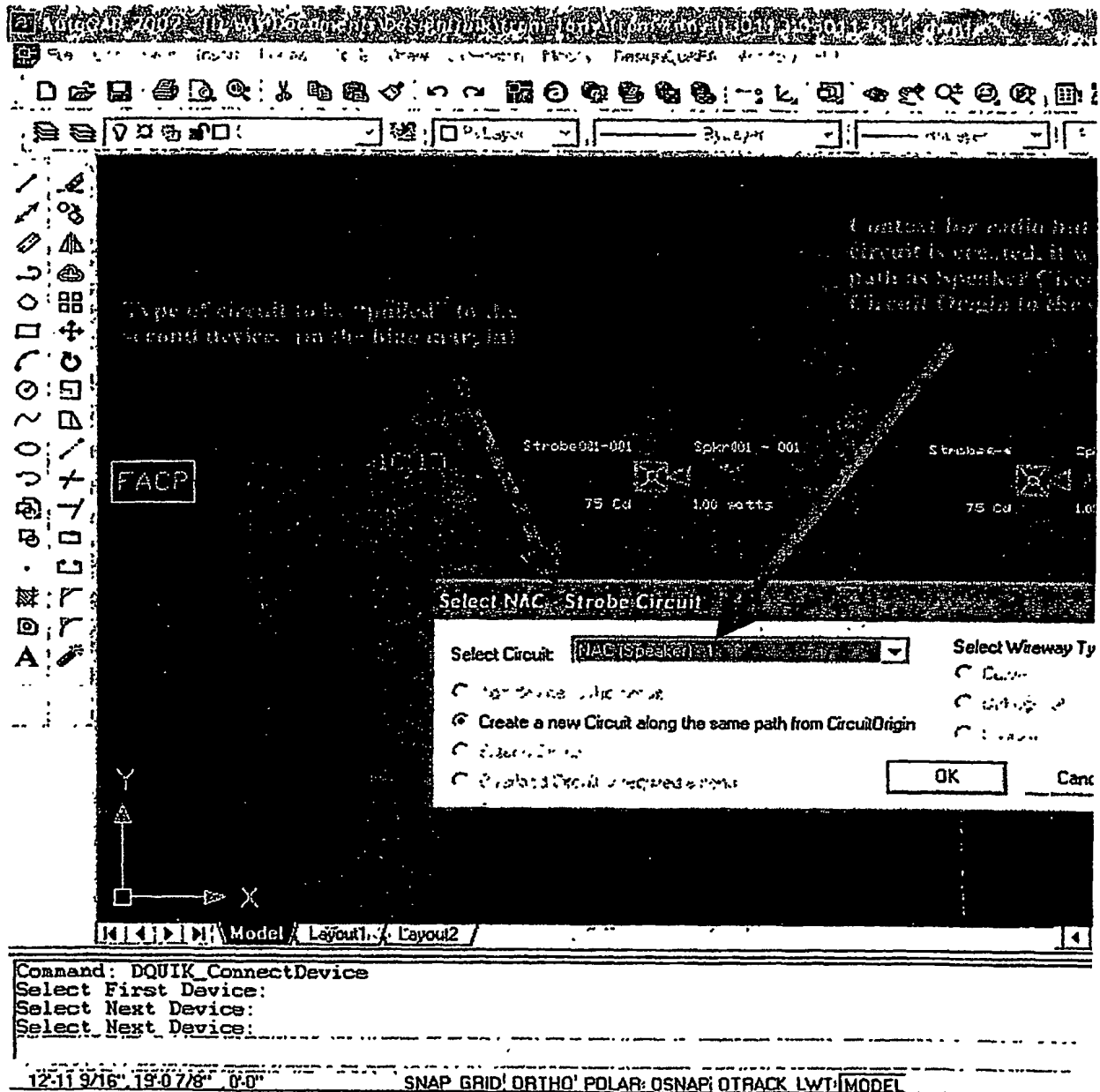


FIG. 48A

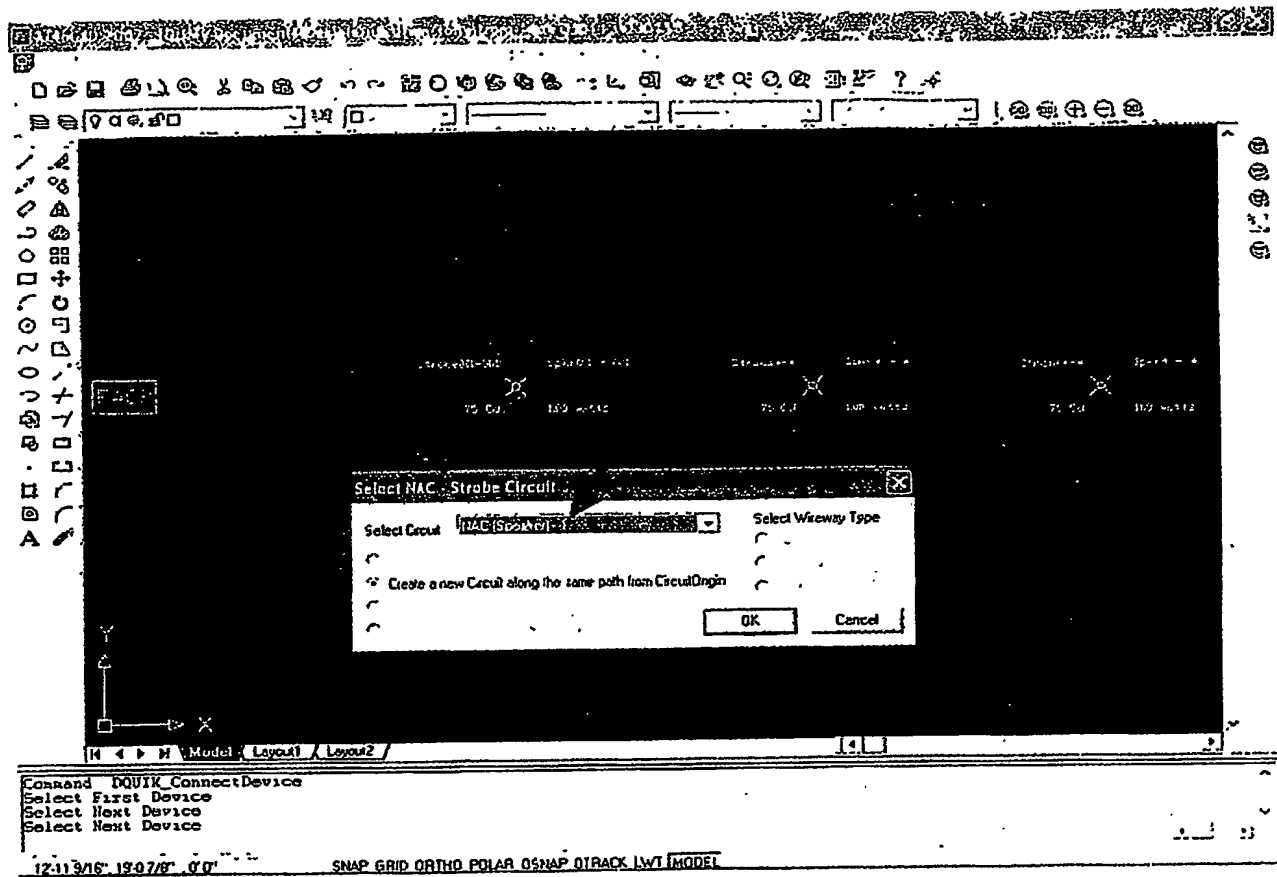


FIG. 48B

[Previous Page]

[Next Page]

[Return To Beginning]

Now change the context for the radio buttons, to see other options. Use the pull-down text box and select Strobe Circuit 1 as shown.

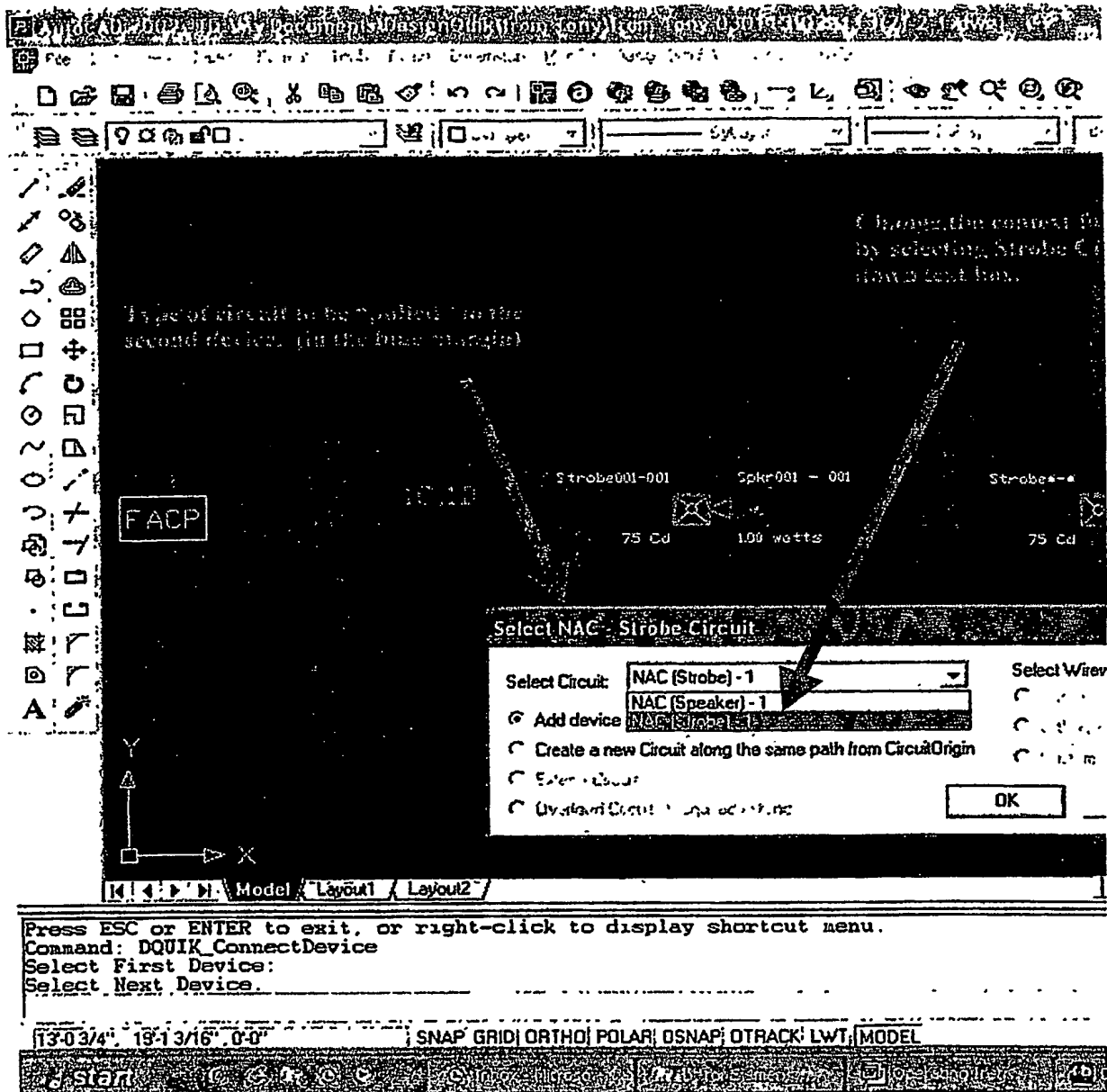


FIG. 49A

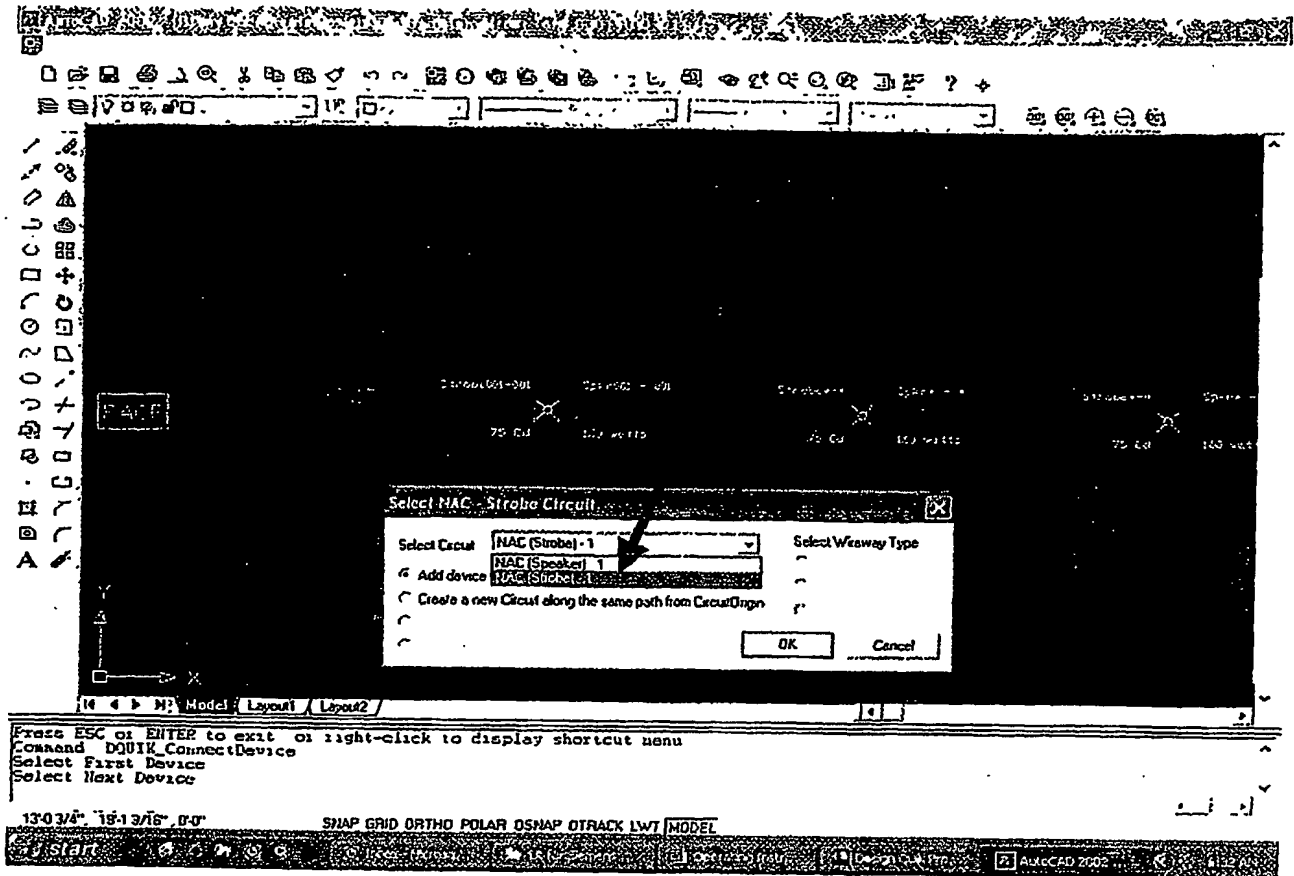


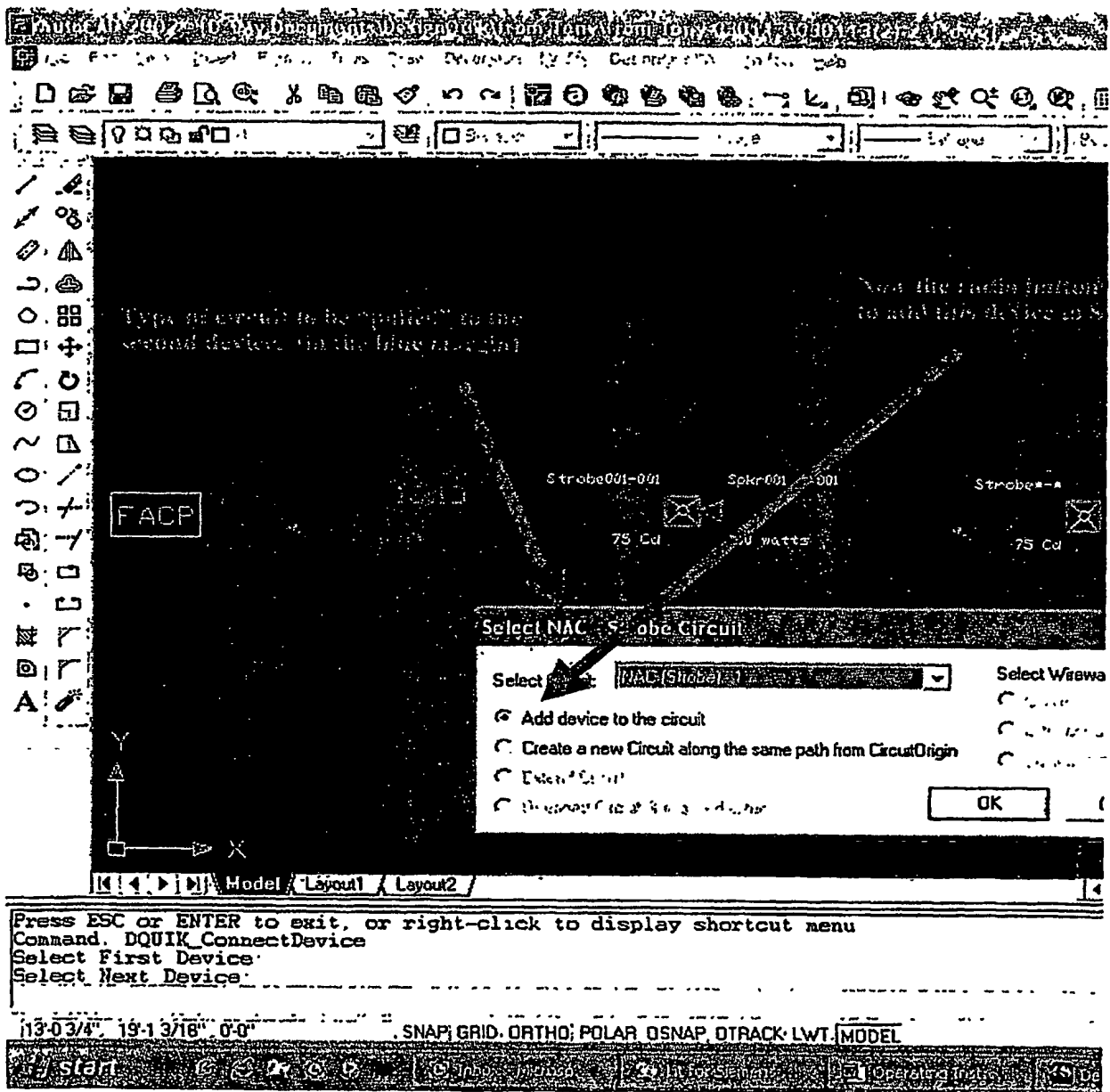
FIG. 49B

[\[Previous Page\]](#)

[Next Page]

[Return To Beginning]

The radio buttons now include a choice to add the second device to Strobe Circuit 1.



[\[Previous Page\]](#)

[Next Page]

[Return To Beginning]

FIG. 50A

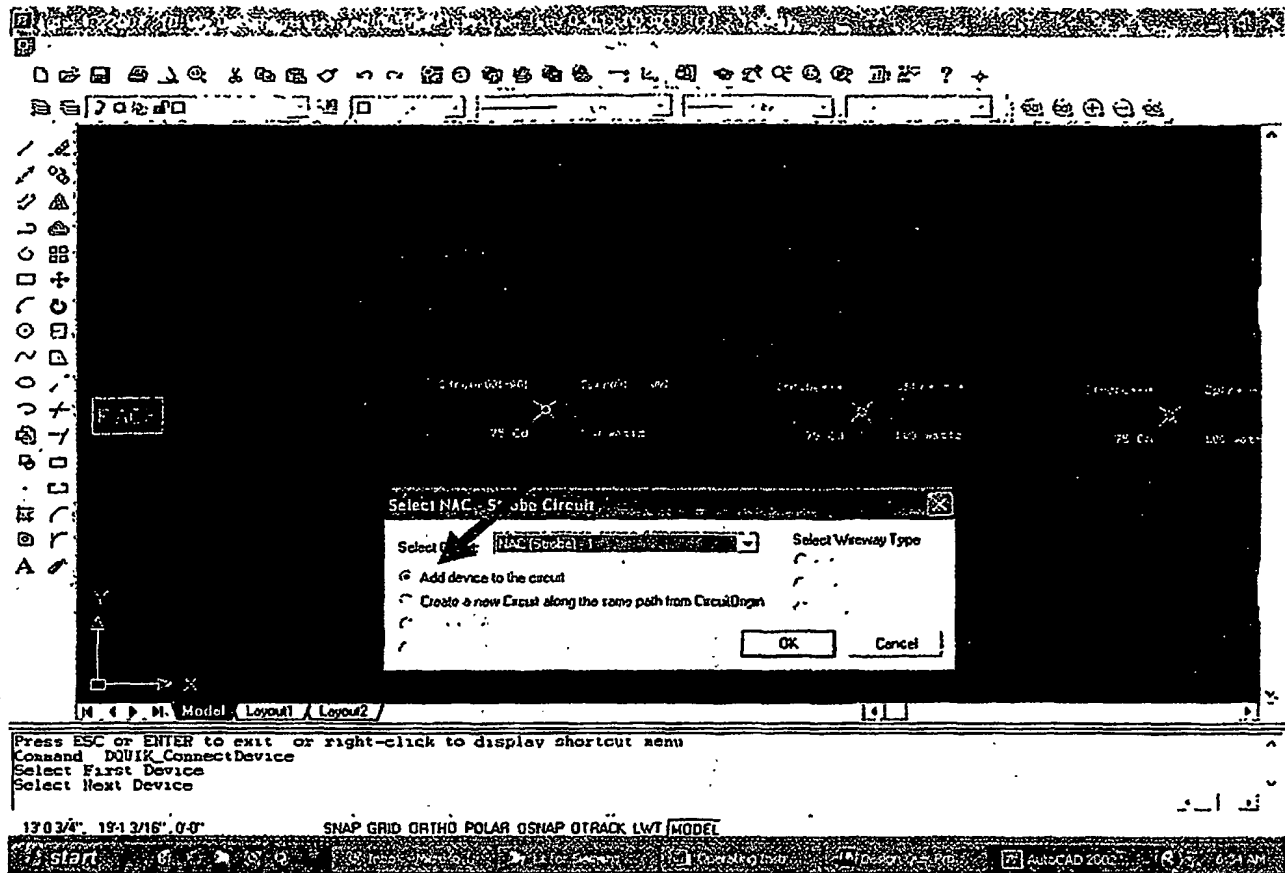


FIG. 50B

[Previous Page]

[Next Page]

[Return To Beginning]

The strobe and speaker circuit connection methods are now complete, so the connection is made. The Command Line prompts the user to continue by selecting another device for connection. At any time, the user can cancel the Connect Devices command by right click of the mouse or with the <Escape> key.

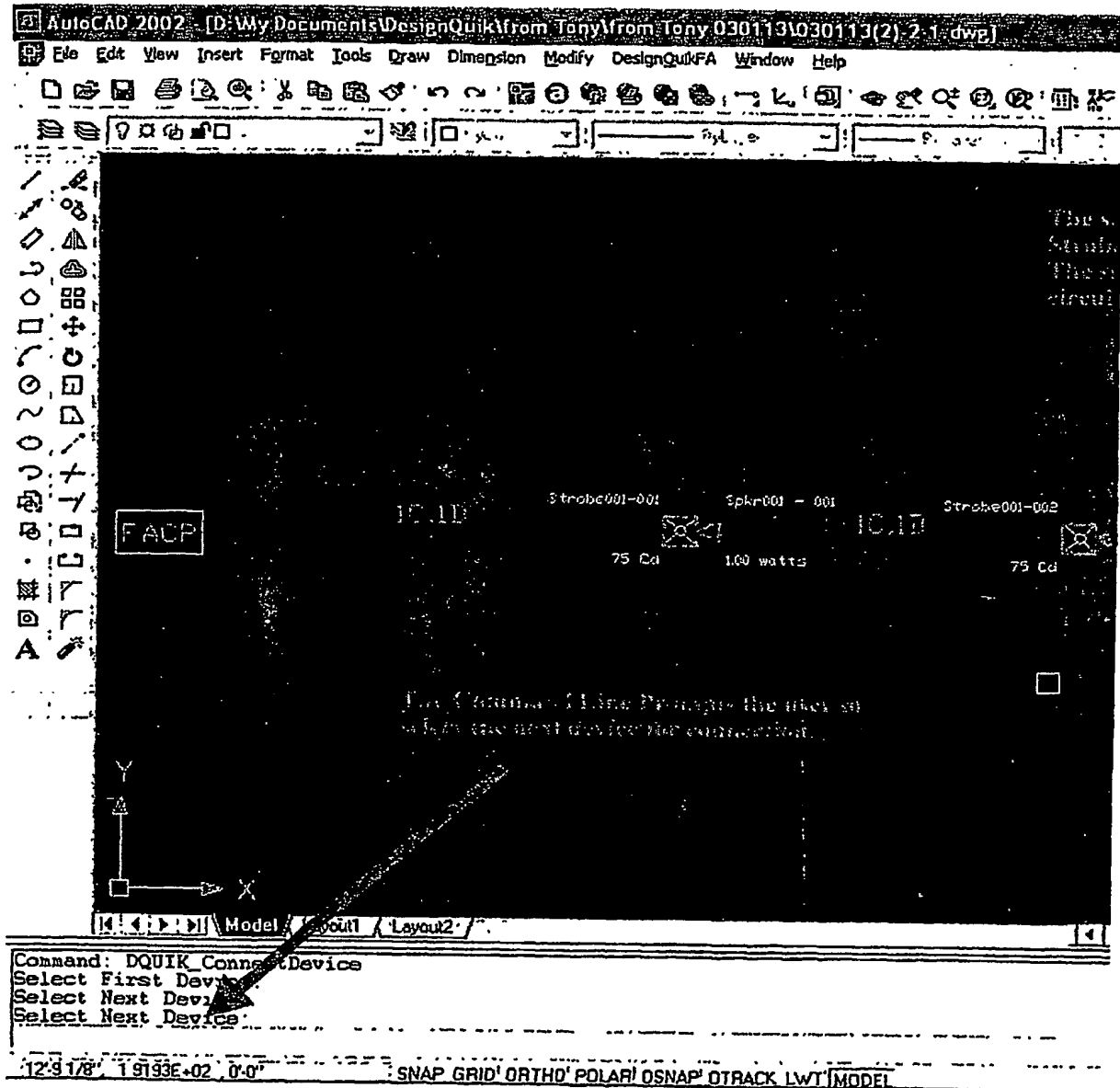


FIG. 51A

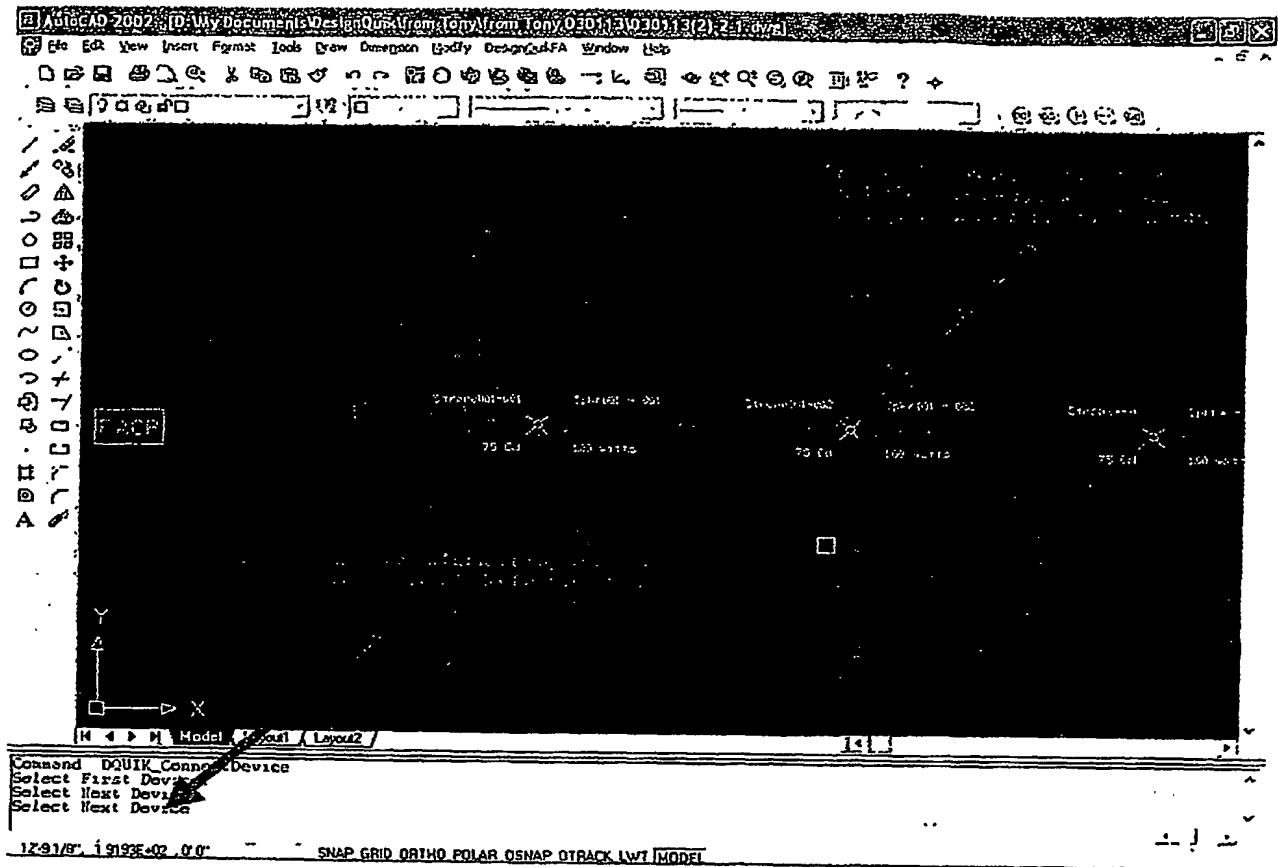


FIG. 51B

[Previous Page] [Next Page] [Return To Beginning]

The entire circuit of devices may be connected without exiting the Connect Devices command. Alternatively, the command may be canceled after connection of any device, then the Connect Devices command can be re-entered, and connection resumed by clicking on the LAST CONNECTED device, then the next FREE DEVICE, etc.

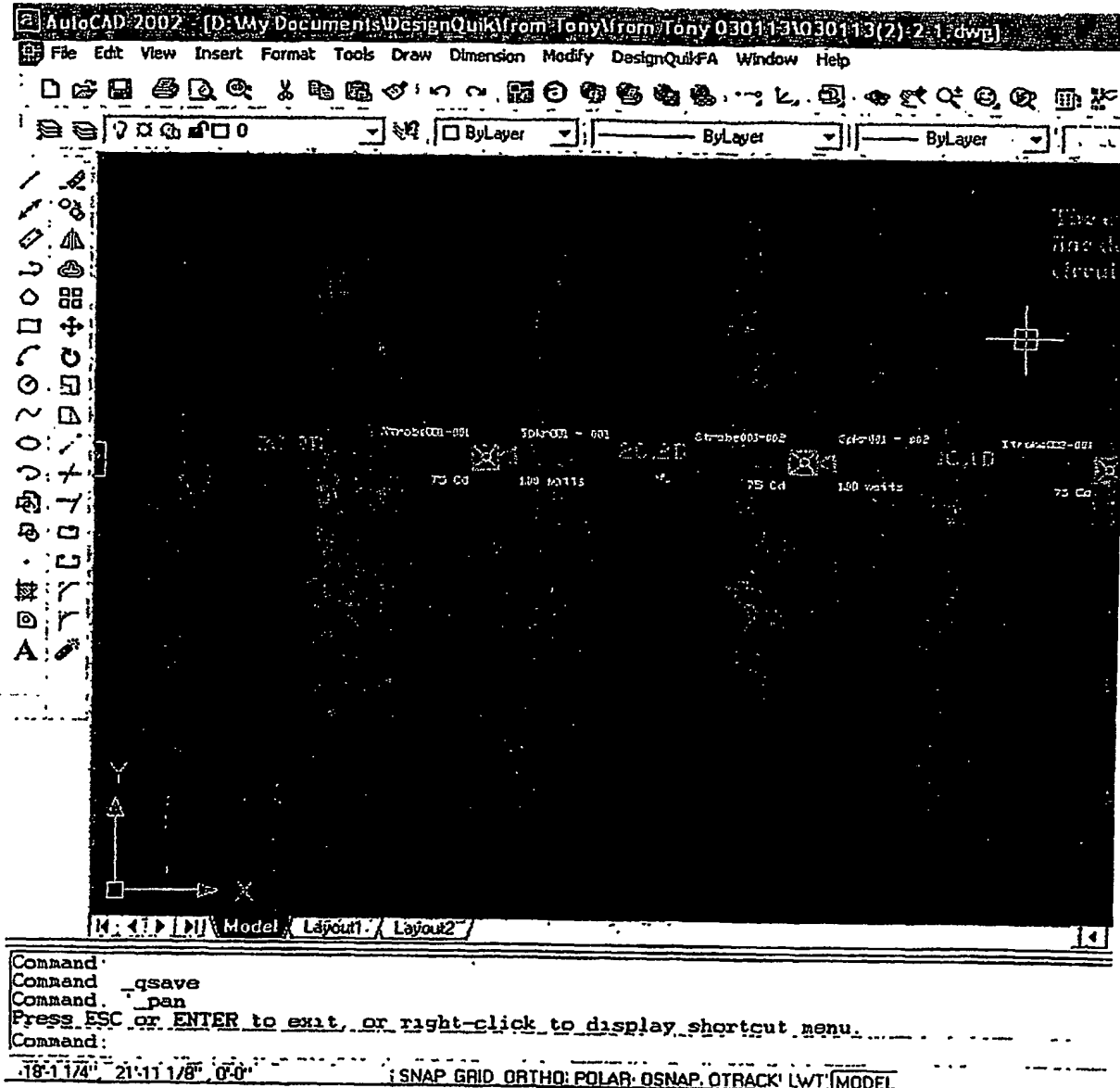


FIG. 52A

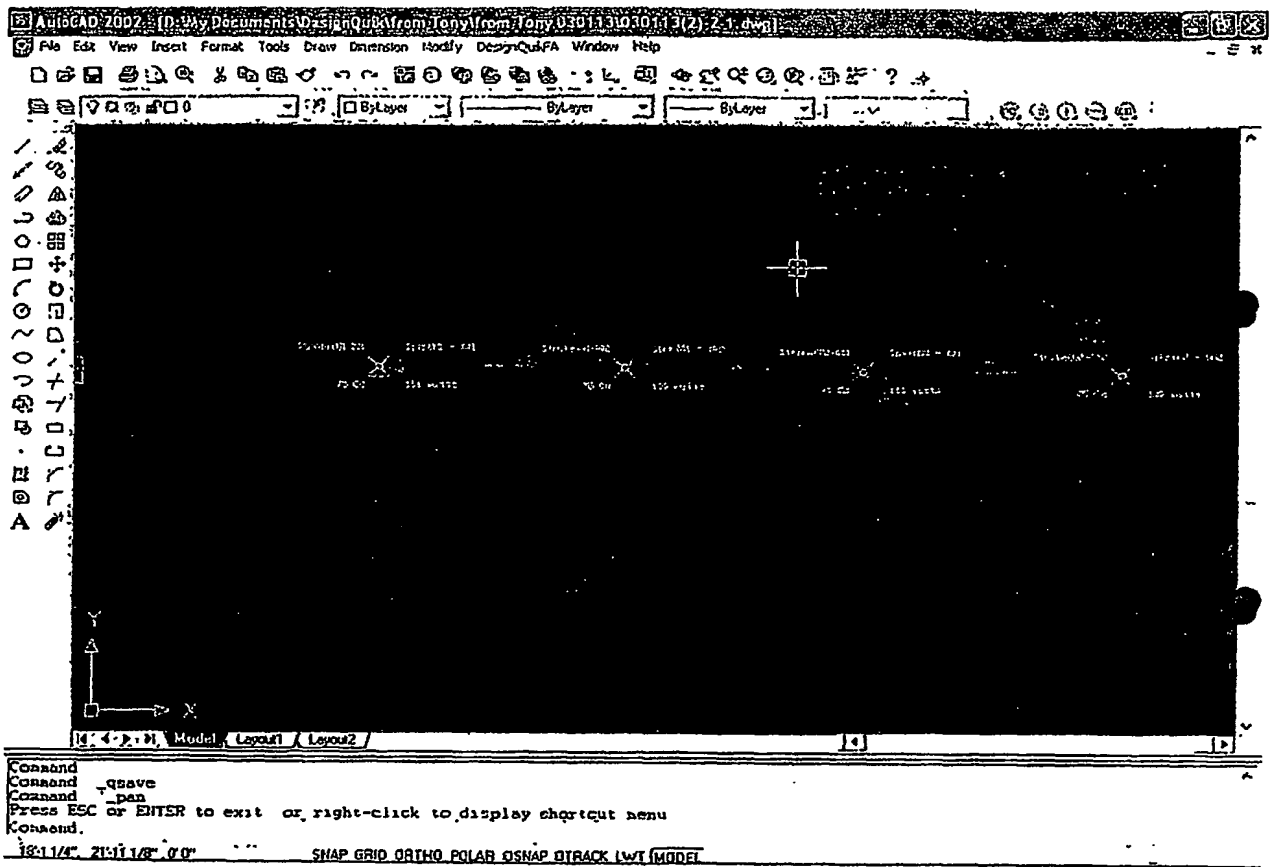


FIG. 52B

[Previous Page]

[Next Page]

[Return To Beginning]

Now to include an addressable smoke detector in the system. The software automatically will choose a Signaling Line Circuit (SLC) for connecting this device. The user has the option of routing the SLC directly from the FACP in its own wireway, or through the existing wireway. For this example, the SLC will be routed through the existing wireway.

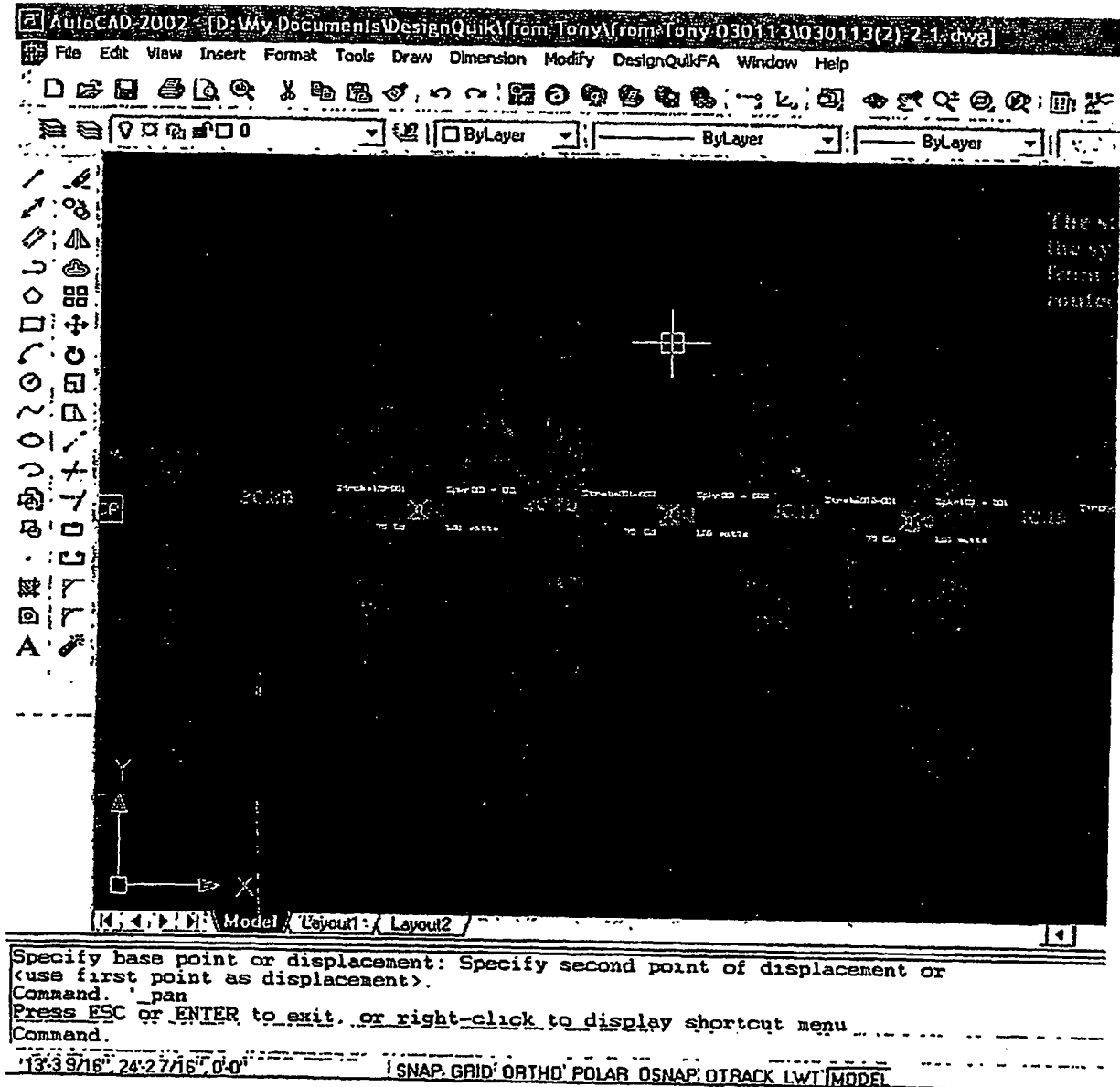


FIG. 53A

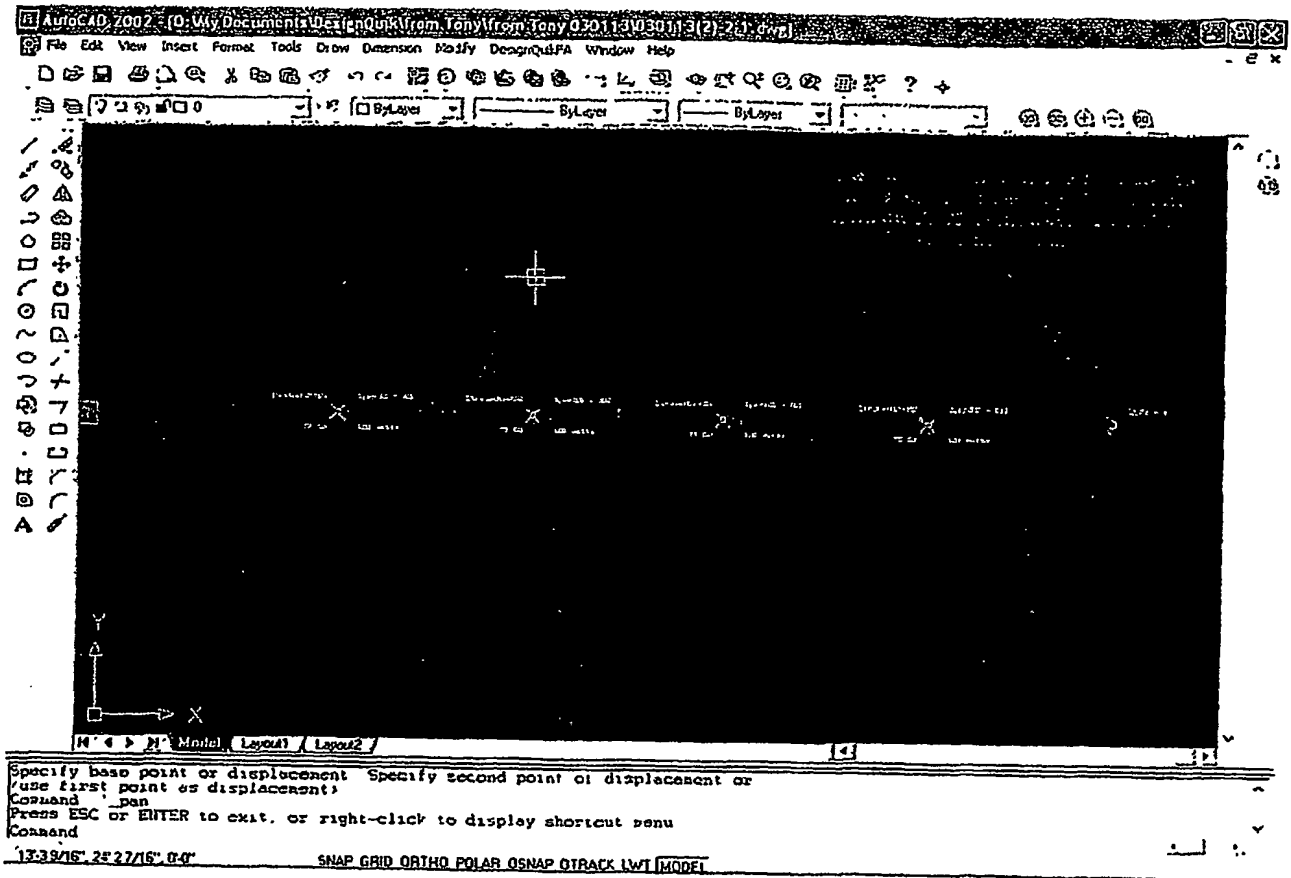


FIG. 53B

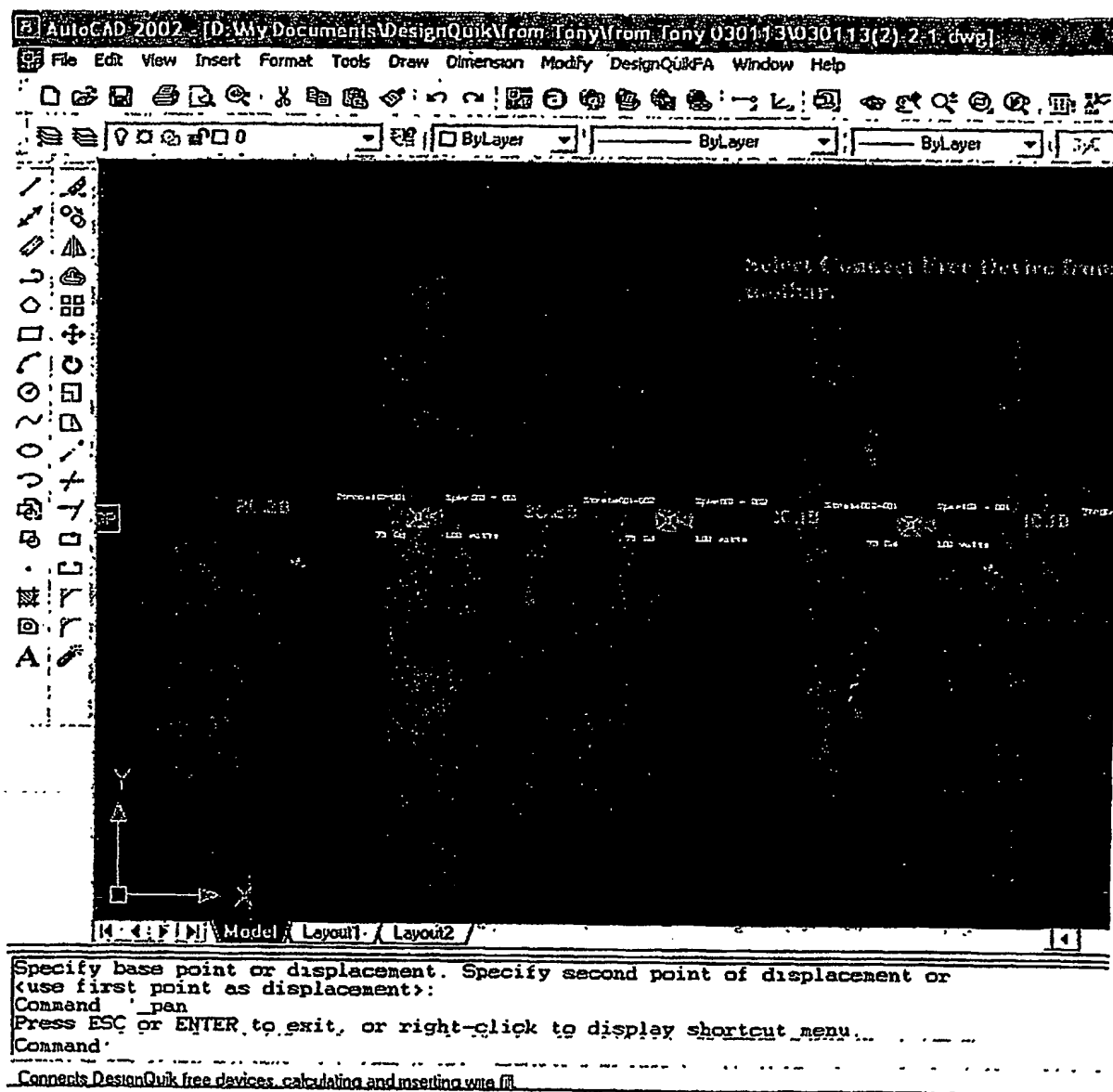
[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)[\[Previous Page\]](#)[\[Next Page\]](#)[\[Return To Beginning\]](#)

FIG. 54A

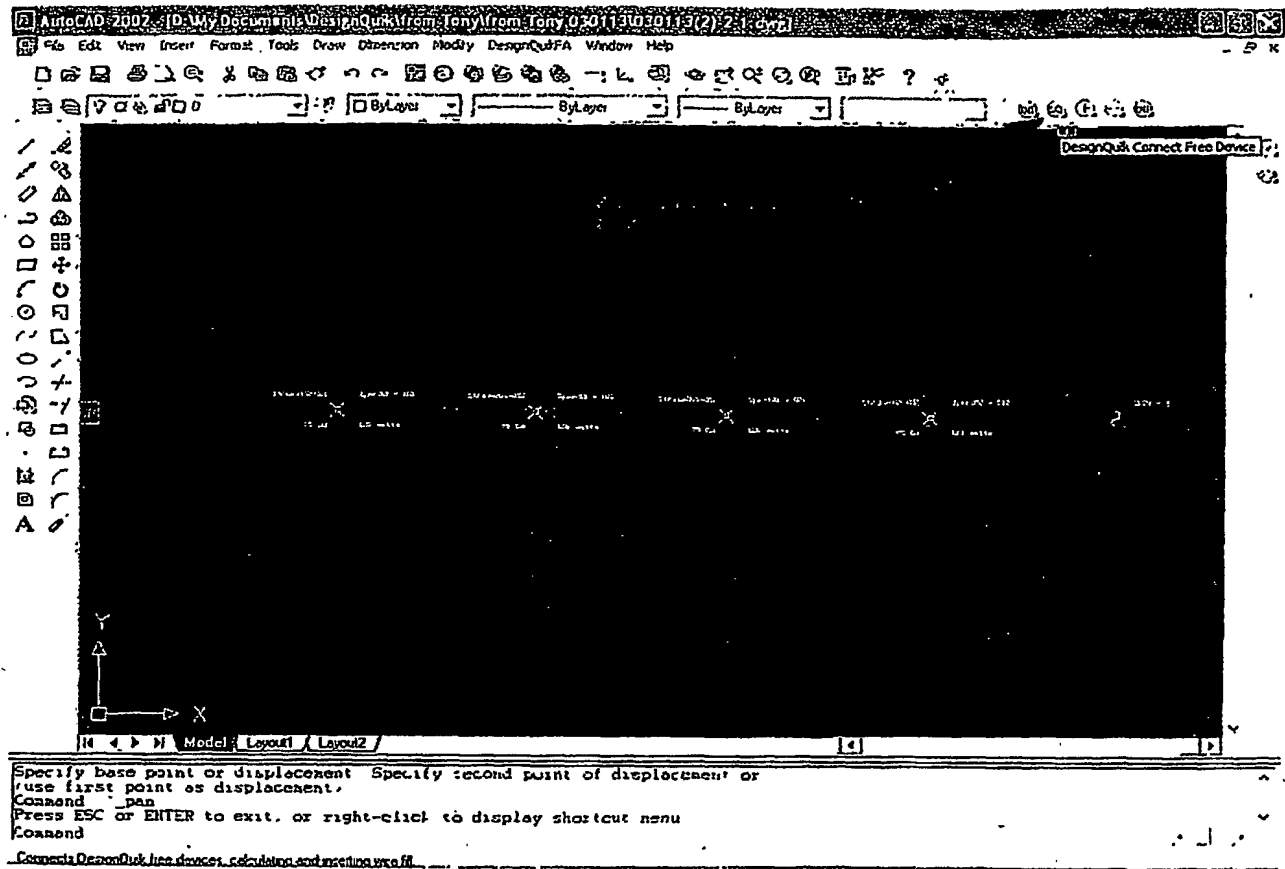
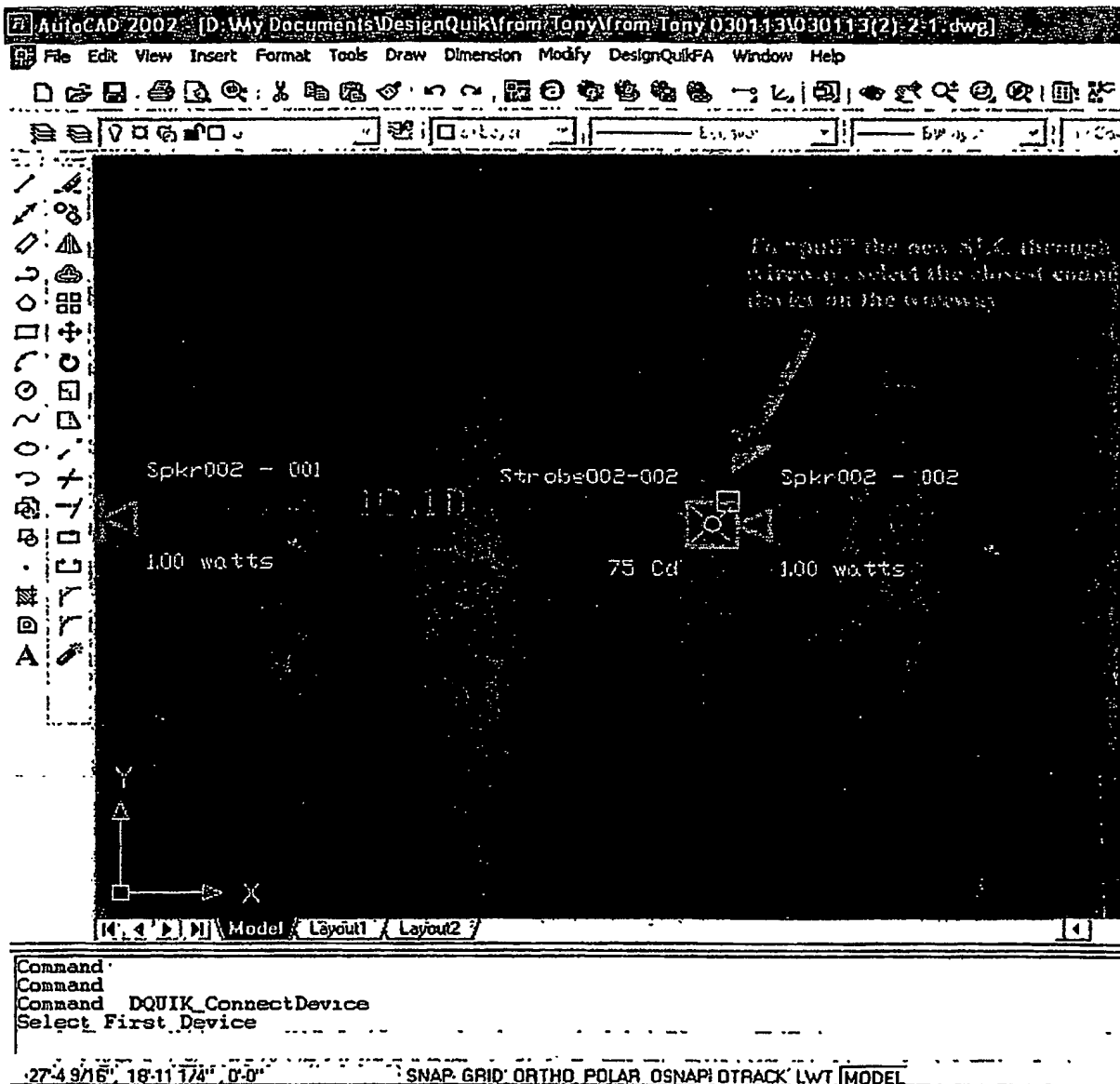


FIG. 54B

[Previous Page]

[Next Page]

[Return To Beginning]



[Previous Page]

[Next Page]

[Return To Beginning]

FIG. 55A

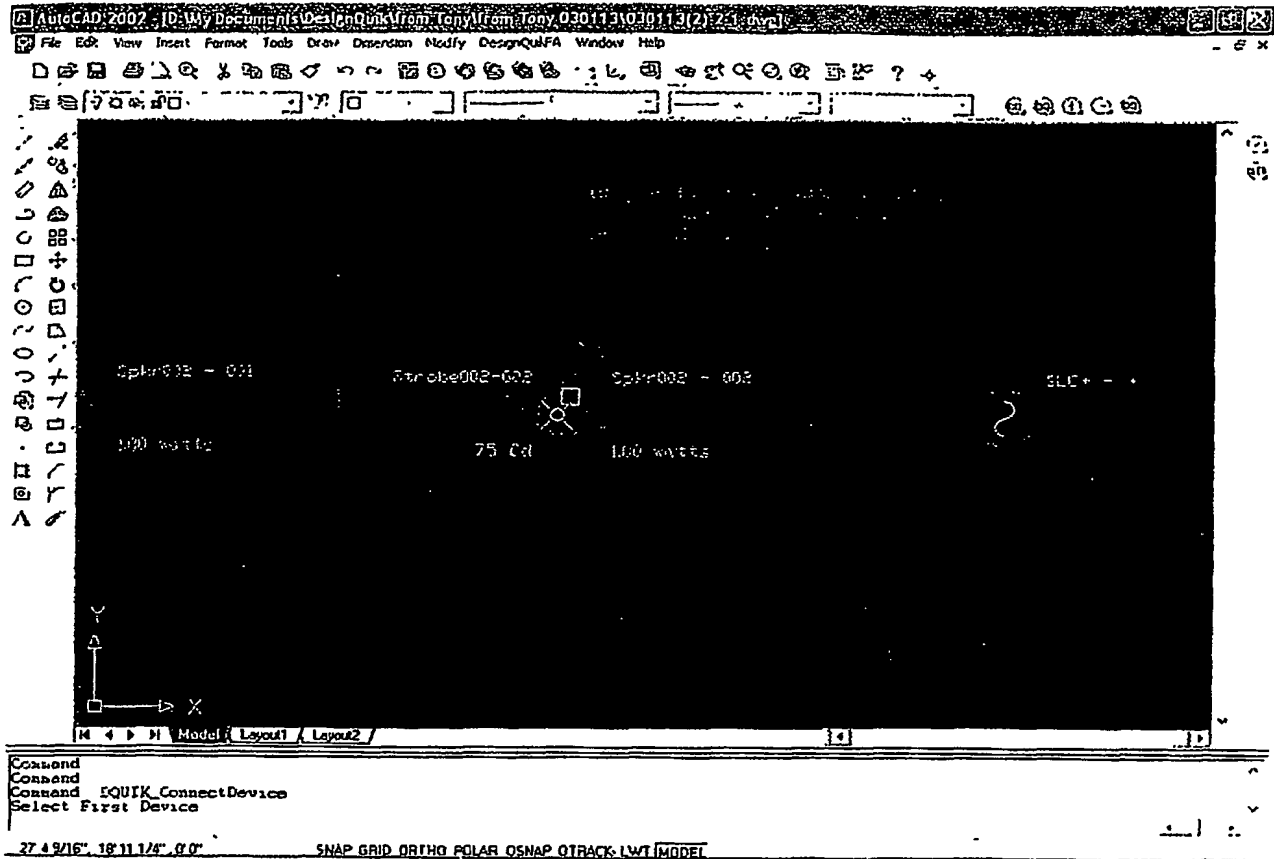


FIG. 55B

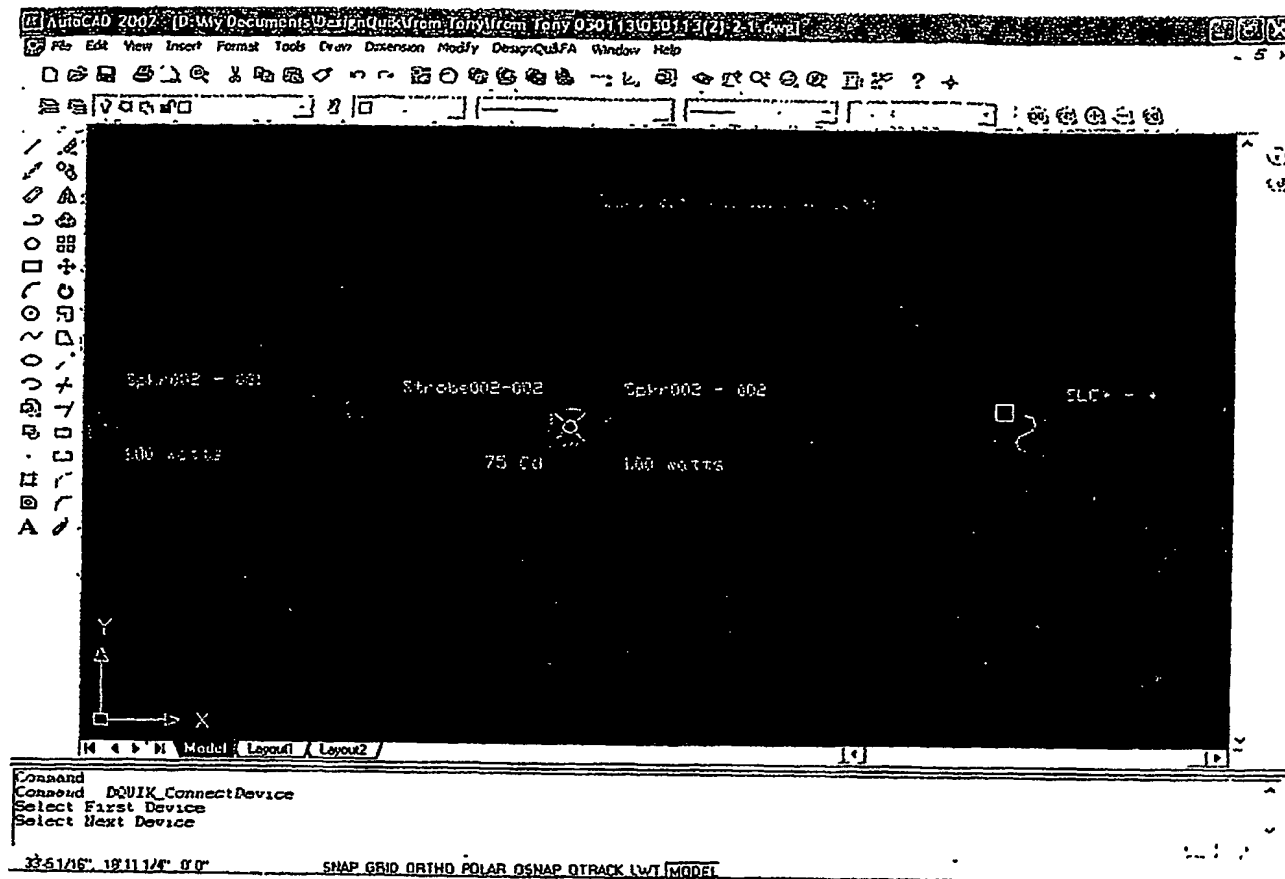


FIG. 56

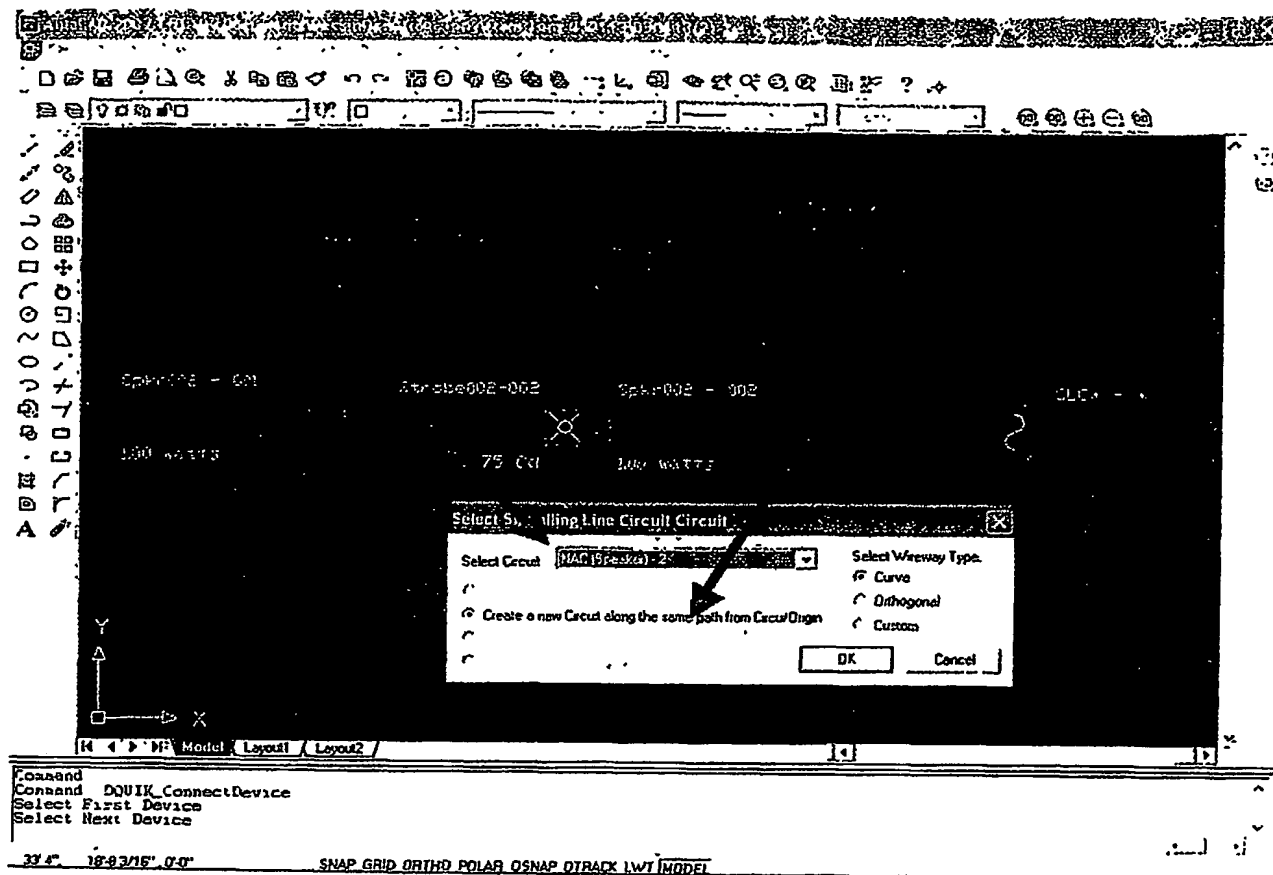


FIG. 57

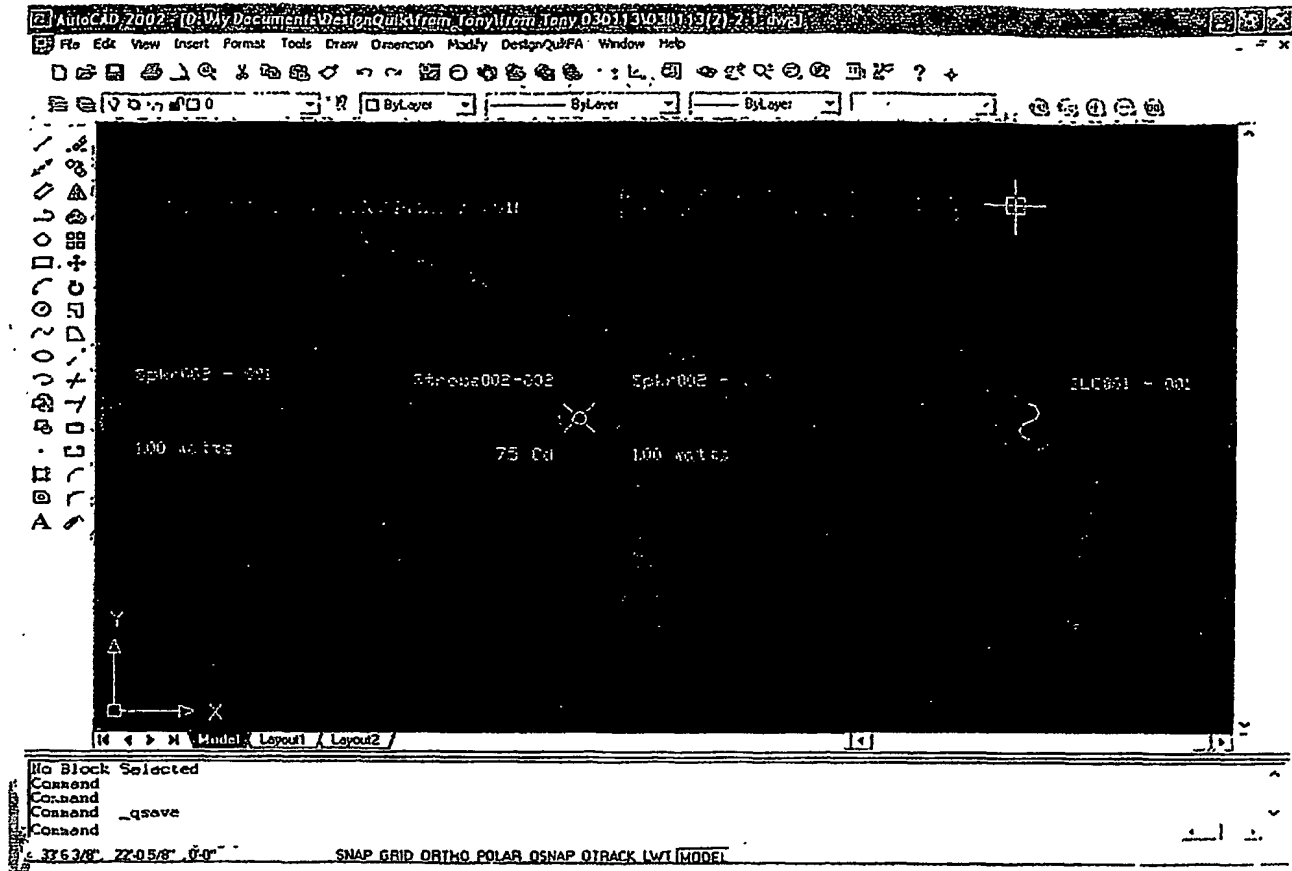


FIG. 58